

# **EDUCATIONAL TECHNOLOGY AND ICT**

**Dr. Sarita Anand**

**Department of Education, Vinaya Bhavana**

**Visva-Bharati, Santiniketan**

**Week-10**

**Lecture-46**

## **Module-46: Institutions and Professional Development of Teachers (Part-I)**

Hello dear learners, welcome to the SWAYAM-NPTEL course on Educational Technology and ICT. I am Dr. Sarita Anand from the Department of Education, Vinaya Bhavana, Visva-Bharati, Santiniketan, West Bengal, India. Today we will talk about Module 46. It is on Institutions and Professional Development of Teachers. Because this is a lengthy topic, I have divided it into two parts.

Today we will cover Part 1. This will be Lecture 46. Before discussing the topic, we will review the course content. Earlier, we discussed the applications of ICTs inside and outside the classroom, practical tools, and the use of ICTs in the classroom using Google tools. We covered many Google tools like Google Docs and Google Forms in the previous lecture.

Now we will discuss today's topic, Institutions and Professional Development of Teachers, Part 1. As we know, a profession is defined by two key commitments: to serve and to do so with deliberate understanding and effectiveness. Unlike other occupations that also involve service, a profession places service at its core, making it the primary focus.

Professional development means we must focus on our primary task in the teaching profession, which is to teach. Teacher professional development is not a part-time, one-time event but an ongoing process, a statement frequently found in documents addressing teacher growth. There is no question that teaching is a profession, but it comes with specific professional responsibilities. These responsibilities are sometimes formalized in codes of conduct, while other times they remain unwritten conventions. The Education Commission in 1964 to 1966 also recommended that school complexes, shouldering the responsibility for the continuous professional development of all teachers working in the schools, should be established.

State Institute of Education SIEs have come up in various states as outcome of these recommendations. Report of National Commission of Teachers 83 to 85 titled Teachers and the Society also recommended that every teacher must attend in-service training of 3 weeks duration, once in a block of 5 years and it should be linked with the career promotion. If this career promotion is related with the career development task or the programs, then definitely teachers will attend the professional development courses. So, the Acharya Ramamurthi Review committee in 1990.

Explicitly advocated that in-service and refresher courses should be related to the specific needs of the teachers. In-service education should also take care of the future needs of the teacher growth, evaluation and the follow up should be part of the schemes. National Curriculum Framework for Teacher Education NCFTE 2009. It also proposed many initiatives to strengthen in-service teacher education as a mean of professional development. Chapter 4 of NCFTE deliberates in detail about the continuous professional development and supports for in-service teacher education.

And NEP 2020, NPST 2023 and also the NCFSC 2023 has introduced transformative shifts in teaching learning process impacting the role of teachers. Numerous policy changes like this have continually reshaped the responsibility and expectation of the teachers. Now, we will talk about the different institutions of India which are providing the professional development courses. and continuous professional development programs. In India several institutions are dedicated for the professional development of teachers focusing on pre-service, in-service and continuous professional developments across different level of education starting from school to higher education.

These institutions operate at national, state, and district levels. Ensuring capacity building, research, and training in pedagogy, educational technology, and different subject-specific competencies. Here, we will mainly talk about the in-service professional development of teachers in India because our topic is about the professional development of teachers. So, we will focus on the in-service teachers. CIET mentions that the National Education Policy 2020 states

that teachers truly shape the future of our children and, therefore, the future of our nation. The motivation and empowerment of teachers are required to ensure the best possible future for our children and nation. As per the recommendation of NEP 2020, every teacher and headteacher is expected to participate in at least 50 hours of Continuous Professional Development (CPD). Opportunities every year for their own professional development,

driven by their own interests. So, if we are interested in any subject or topic, then definitely we can go for the continuous professional development program, attend it, and get the certification for our career development.

CPD opportunities will, in particular, systematically cover the latest pedagogies regarding foundational literacy and numeracy, formative and adaptive assessment, learning outcomes, competency-based learning, and related pedagogies such as experiential learning, arts-integrated learning, sports-integrated, and storytelling-based approaches, etc. To realize the vision of 2020, recently NCERT has initiated NISHTHA, an online integrated teacher training program for different stages of school education, which we will see in later stages of this lecture. Now, the Teacher Professional Development Portal, Government of India, has prepared one portal for teachers' professional development. You, as a teacher or a pre-service teacher, can go through this website. This is actually a repository for teachers. Teachers can utilize the facilities and the content provided here. This portal is a rich repository of good practices that focuses on positive stories, development, and innovation initiated across all states and union territories of India that are driving performance improvements in the area of school education, especially.

These innovative practices are documented in the form of case studies, videos, testimonials, and images. Content is easily searchable by state, union territory, or by the Samagra Siksha component they fall under. So, if you are interested, you can go through this portal. Now, the national-level institutions for teacher professional development, first, we will take the NCERT, the National Council of Educational Research and Training. This NCERT-you all are very much aware of this.

It was established in 1961, and its role is to develop curriculum, textbooks, and teaching-learning materials for schools. It also provides pre-service and in-service teacher training through its constituent units like CIET and conducts educational research and innovation. NCERT also houses these five parts or departments, such as the first one, the National Institute of Education; the second, the Regional Institute of Education; the third, the Central Institute of Education (CIET); PSS; the Central Institute of Vocational Education; and PARAKH. So, we will go one by one through these five components of NCERT.

The first one is the National Institute of Education, New Delhi. It provides teacher training at a national level, and under NIE, there are several departments working toward different goals. Here are the names of the departments under NIE, the National Institute of Education you can see. They have specific departments, and from these departments, you can see the

second last is the Department of Teacher Education. So, this Department of Teacher Education mainly focuses on teacher training for teachers.

It has the greater responsibility for the school teachers' professional development because teacher education is the most crucial input for improving the quality of school education since the policies prepared for schools are to be implemented by the teachers, and the teachers need to be prepared accordingly. If the teachers are not aware of the different policies, government planning, then definitely they will not be able to disseminate those things in their schools. That is why the Department of Teacher Education of NCERT is working towards the awareness and the professional development of the teachers. The NCERT, therefore, addresses itself to the task of formulation and organization of teacher education programs, both pre-service and in-service. The programs and activities of the Department of Teacher Education and Extension (DTEE) focus on research, development of materials, capacity building of teachers and teacher educators, academic support to centrally sponsored institutions of teacher education like DIETs, SCERTs, CTEs, and IASEs, and promotion of innovations and experiments in

teacher education and school education in the organization of extension programs. Now, the second component was the RIEs (Regional Institute of Education). The Regional Institutes of Education, established by the NCERT, play a crucial role in teacher education, training, and capacity building in India. There are five RIEs. across different regions of India.

The first one is RIE Ajmer for the northern region, RIE Bhopal for the western region, RIE Bhubaneswar for the eastern region, RIE Mysuru for the southern region, and RIE Shillong for the northeast region. This Shillong is working for the northeastern region, and each region functions as a center of excellence, conducting pre-service and in-service teacher training, curriculum development, research, ICT-based pedagogical advancements, professional development, digital education support, research opportunities, and inclusive education training aligned with the NEP 2020.

It supports teacher capacity building, innovation, and school transformation. These RIEs are keeping in mind the regional needs, requirements, and language issues, and they are catering to the problems and trying to solve those regional problems related to education and teacher training. Then comes the third one, that is, the Central Institute of Educational Technology. In previous lectures, we had seen how CIET functions. A whole lecture was

there on CIET, but right now we will go through the CIET as a professional development center.

We have discussed it as this is the component of NCERT and autonomous organization under the ministry of education government of India. It develops the digital and ICT based teacher training programs and operates DIKSHA and NISHTHA like platforms and provides training in educational media, multimedia content, e-learning resources especially for mass media singly or in combination with the multimedia packages. To extend the educational opportunities and improve quality and educational processes at the school level. So, CIET is mostly focused on the school education and it provides the NISHTHA, DIKSHA and other platforms like PRASHAST for the professional development of teachers especially the school teachers. So, this has the department which have we had already discussed like the department of ICT and training, media production division, planning and research division and engineering division.

These departments of CIT are organizing several professional development programs for schools, teachers and the head of the schools. They are also organizing the programs like webinars and different types of professional training and awareness programs. Recently, I have checked the website of the CIT and found that the in this month of the March 2025, they have organized webinars like on the burning issues like social media safety, digital arrest, gaming security, and health and wellness in cyber safety.

So, by viewing this the topic of webinar we can understand that yes CIET is working a lot towards the capacity building as well as the professional development of the teachers. So, if we see the capacity building through online training program CIET and NCERT is conducting online training to promote the technology in teaching and learning process. The NEP 2020 holds the emphasis on the interplay of education and technology and the according to policy the they note that the one of the central principle or to steer the education system will be the extensive use of technology in teaching and learning, removing the language barriers and increasing the access as well as educational planning and management and keeping in view with the NEP 2020, it has set the out the laying standards encouraging digital content development which will become a digital push for the quality development in the field of education. For example, they had run the program online training on

Integration of virtual labs in teaching learning phase 4 and this is online training on ICT for teaching and learning of school sciences etc. This kind of programs are promoting

professional development with the use of ET and ICT. So, I have given the link here you can click on the link and go through the program what kind of program is it. So, the next one is NISHTHA. NISHTHA is also the part of product of CIET, it is the capacity building program for improving the quality of a school education through integrated teacher training.

So, the full form of NISHTHA is ah National Initiative for School Heads and the Teachers Holistic Advancement. This holistic advancement A tries to ah create the awareness give the training to the school teachers and the head of the teachers. So, realizing the NEP 2020 the ah NCERT CIET had tried to give the training of the teachers of the CBSE, KVS, Navodaya Vidyalaya, Sainik school and different other boards like ICSC etc. through the initiative of NISHTHA 2.0. Online integrated teacher training program for different stages stages of school education.

Now, the component of NISHTHA actually NISHTHA has the four components which we we can see in the previous slide that the NISHTHA 1.0, 2.0, 3.0 and the 4.0. The first ah NISHTHA 1.0 is for elementary teachers and it focuses on the teachers of grades 1 to 8. Its mode of the training is face to face may be shifted on the online also. And it covered the 4.2 million teachers across state. It means if you want to see the latest position you can go through the CIET website.

And the NISHTHA 2.0 is for secondary school teachers. from the grade 9 to 12 level and mode is via online or through DIKSHA portal emphasizing the subject specific pedagogy, assessment and digital learning. The third component of NISHTHA is for foundational literacy and numeracy, we call it FLN, the Foundational Literacy and Numeracy. This, its focus is on the working with the students of age group 3 to 9 years and early childhood care and foundational learning and its alignment is regarding integrating the national initiative of proficiency in education. Reading with understanding and numeracy.

We call it NIPUN Bharat and government of India is running this mission of NIPUN Bharat, where they are trying to make the children efficient for proficient reading with the understanding and numeracy. The purpose of FLN is to training program for the teachers and the school leaders and the heads on foundational literacy and numeracy. FLN refers to the basic skills of reading, writing and maths. The fourth part of NISHTHA is on ECCE, Early Childhood Care Education. It focuses on the teachers of grade 1 to 5 and the mode of the plan will be providing online and offline training to the members of CRC, BRC, DIET and SCERT faculty, PO and CDPO, supervisor of Anganwadi system and the

teachers at foundational level and preparatory level. So, these four components of NISHTHA is working towards the professional development of school And the implementation of NISHTHA basically we had talk already that the face to face mode initially they had started designing their course according to the face to face training program where the resource person trained the teachers to at the block level and the cluster level latter on the latter stages they go online mode with the help of DIKSHA platform. After COVID-19 pandemic NISHTHA was transferred into transformed into online teacher training program through the DIKSHA platform.

This has enabled self paced learning and continuous professional development for the school teachers. Then the multilingual support, yes this feature is very important because the program is available in multiple languages and ensuring the inclusivity for teachers across India. At present it is providing course content in Hindi, English and Urdu. The next one is collaboration with states and union territories. The initiative is implemented in partnership with the state governments and union territories ensuring the contextualizing the training content state needs.

So, if you are interested for detailed information regarding the NISHTHA, you should go and see the platform or the website of NISHTHA which I have mentioned here in this PPT. Now, we will talk about the DIKSHA. This DIKSHA is we had already have the topic regarding the particularly DIKSHA that is why I am not going to elaborate DIKSHA, but we we will keep it for the next lecture. The fourth point is PSS Central Institute of Vocational Education and this This platform is focused for the vocational education in school level.

So, the Pandit Sundarlal Sharma Central Institute of Vocational Education is also called as PSSCIVE is an apex research and development organization in the field of vocational education. It is a constituent unit of NCERT established in 1993 by the Ministry of Education Government of India and its whole focus is on the vocational education skill development of the school students. PSSI provides skill-based training in collaboration with the schools, ITIs and polytechnic across India. The main vocational skill areas include like agriculture and allied sectors, organic farming, floriculture, dairy farming etc. health and paramedical sciences like community health workers, laboratory technicians training. Information Technology and Artificial Intelligence like coding and cyber security, robotics.

They are giving the training to the school students especially 11th and 12th students regarding these kinds of skills. Tourism and hospitality management, hotel organization and event management. Retail, banking and financial services like digital marketing, e-commerce, financial literacy, etc. The green jobs and renewable energy like solar technology, environmental sustainability skills, etc. and the last one is handicrafts and textile industries like handloom, weaving, fashion designing and leather work.

So, this kind of training is being given by the PSSCIVE. And through this they are doing the capacity building for school leaders and administrators. So, training school principals and administration administrators on integrating vocational education into school curricula. How they can inculcate these kind of skills in their curricula this training is being given by the PSSCIVE. Workshops on policy implementation funding and management of vocational education programs these roles and function of PSSCIVE is given on their website and I have taken from that and you can see that they are working a lot regarding the vocational education of the school students now the fourth one is PARAKH.

And PARAKH is about the Performance Assessment Review and Analysis of Knowledge Holistic development. So, actually this PARAKH is about the assessment the national assessment center PARAKH and this PARAKH is set up in NCERT as independent constituent unit via notification, government notification and NCERT on 8 February 2023 and it fulfils the basic objective of setting norms, standards, guidelines and implement activities related to student's assessment along with other tasks as mandated by para 4.4.1 of the NEP 2020. Like there are four major areas of focus for PARAKH which we will see that what are those four areas. The first one is capacity development in competency-based assessment.

The second one is the large-scale achievement survey. The third one is the equivalence of school boards. And the fourth one is the holistic progress cards for the foundational, preparatory, middle, and secondary stages. Among the above four, the first task of PARAKH is directly related to the professional development of teachers regarding assessment. That is why I have included PARAKH in our lecture on capacity building or capacity development in competency-based assessment. There was a project called the Vidyasagar project, and PARAKH, in collaboration with the PhD Chamber of Commerce, is organizing a series of workshops in all states and union territories of India for the dissemination of learning competencies at the foundational, preparatory, middle, and secondary levels as per the NCFSC 2023. The aim of this exercise is to familiarize the

teacher educators and the teachers with the pedagogical and policy changes that have been introduced with the NCFSC (I have misplaced the SC), NCFSC 2023, in order to ensure that gaps in the implementation of competency-based learning and teaching are bridged. So, dear learners, you have to correct it to NCFSC 2023.

Now, the second one is the National Institute of Educational Planning and Administration. Till now, we were focusing on the professional development of teachers. Now, the professional development includes not only school teachers but also teachers from higher education institutions. This NIEPA, the National Institute of Educational Planning and Administration, was established in 1962. The main role of this institute was to provide training for educational planners, policymakers, and administrators. And to conduct research and development in educational leadership and management, focusing on capacity-building programs for school and college principals and administrators in national and global contexts. For these purposes, they have different departments, such as the Department of Educational Planning, the Department of Educational Administration, and other departments, including the fifth one, the Department of Training and Professional Development in Education.

That is why I have chosen the NEIPA for the professional development of teachers. So, we will see how they are performing their task. NIEPA plays a decisive role definitely they are shaping the teacher professional development by offering specialized training, policy research and capacity building programs for teachers, social leaders and policy makers. Through its various departments, it strengthens the educational leadership, promotes ICT based learning and enhance the school governance, college governance, ensuring a high-quality education system in India. I have also completed one faculty development program.

From here I forgot to mention the certificate. I always keep the certificate in my PPT so that my learners will be motivated to do or attend this kind of professional development programs. So, the role of NIEPA for the professional development of the teacher I have mentioned that the school heads and the teachers receive training in administration and governance. Teachers benefit from training through different FDPs, short term courses in an innovative pedagogical approach.

NIEPA also providing the training programs ah aligned with the teacher capacity building goals under the NEP 2020. And now recent development is that the NIEPA is working as a Malabiya Mission Teacher Training Center and it's contributing a lot in professional development of teachers through its ah MMTTC center which, we will discuss in latter

stages where we will talk about the HRDCs and MMTTCs. Then comes the NCTE, we all aware of the National Council for Teacher Education. This is the the institution which is taking care of the teacher education programs all over India.

And it was established in 1995 and regulates the teacher education institutions. It develops the framework for teacher qualifications, training, and professional ethics, aligning with the teacher training programs under NEP 2020. Basically, it takes care of pre-service teacher education programs, not the professional development of in-service teachers, but sometimes, regarding continuous professional development, they have given instructions on what kind of training programs we should follow. For that, they have developed the NPST, National Professional Standards for Teachers, to establish a structured career path for teachers aligned with the NPST and NEP, focusing on pedagogy, pedagogical expertise, ethical values, and leadership skills. This NPST document is available in different languages on the NCTE website, and you can go through it. I will provide the link for this NPST.

This NPST outlines continuous professional development and plays an important role in ensuring professional growth, quality training, and competency development for teachers in India. Through policy reforms, digital education, recognition, and competency-based training, NCTE is shaping a future-ready, highly skilled teacher workforce in alignment with NEP 2020. So, what is the reason I have included NCTE in the topic of teachers' professional development? Because NCTE has provided a document called NPST, and this NPST, in its point number 3.1.4, discusses teachers' professional development. It states that teachers will be given continuous opportunities for self-improvement and to learn the latest innovations and advances in their profession.

As per NEP 2020, teacher preparation is an activity that requires multidisciplinary perspectives, knowledge, the formation of dispositions and values, and the development of practice under the best mentors. It requires teachers to be grounded in Indian values, languages, knowledge, ethos, and traditions while being well-versed in the latest advances in education and pedagogy. The NPST discusses the facilities provided as a public statement of what constitutes teaching quality and what is required to improve the educational outcomes of students in India. These standards shall be a set of guiding statements defining the expectations of the role of teachers at different levels of expertise and stages of their careers. The standards also define what effective teaching looks like and what competencies are required for a teacher to practice in 21st-century schools or colleges at each stage of their teaching career.

So, at the state level, we had talked about the national level institutions like NCERT, NIEPA, and NCTE. Now, the state-level institutions for teacher professional development are the SCERTs, State Councils of Educational Research and Training. I have given the example of West Bengal SCERT because we are residing here in West Bengal, and I have mentioned that these exist in each state and also in the union territories. It always works in coordination with the NCERT to develop state-specific curriculum and training programs, conducts in-service teacher training programs, workshops, professional development programs, and also manages teacher education institutes in their respective states.

The second one is the District Institute of Educational Training (DIET) at the state level, These DIETs were established in light of the NPE, National Policy on Education, in 1986. It is part of the implementation of that policy and addresses the need for decentralization of teacher training. As of a recent estimate, there are over 600 DIETs across India, ensuring district-level coverage for teacher training and educational development. DIETs play a critical role in teacher professional development, especially in in-service teacher education programs, where they provide professional training to both new and experienced teachers, enhance the capacity of educational administrators, and conduct workshops and seminars to improve teaching methodologies.

Then comes the last one, SWAYAM's ARPIT. This ARPIT was a program under SWAYAM, and it was called the Annual Refresher Program in Teaching. It was initiated by the Ministry of Education, Government of India, launched in 2018 under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching. It aimed to provide professional development and upskilling opportunities for faculty members in higher education institutes. Across India, the courses under ARPIT were designed to help teachers stay updated with emerging pedagogical trends, research advancements, and subject-specific knowledge. These courses were delivered online via SWAYAM and assessed through the NTA.

ARPIT courses were eligible for Equivalence for CAS, Career Advancement Scheme and all learners who is successfully complete the online refresher course will be given a certificate. This was the main procedure and I have also completed one. ARPIT program from SWAYAM, but for your information at present ARPIT courses are not offered at SWAYAM you can go through the SWAYAM platform and you will find now there is no ARPIT program at present running. Because they have placed these programs most of the programs made for ARPIT they are now run on the MMTTC centers.

So, now we will go for the ah NISHTHA we will visit the website of NISHTHA. Let us visit and see the how NISHTHA works because many of the component you already know about that. So, this is the main page of NISHTHA and you can see that NISHTHA is they are mentioning the four parts which i had already mentioned NISHTHA 1 2 3 and 4 and if you will scroll through the first page of the NISHTHA you will find that there are lots of information related with the NISHTHAs different aspects like the FLN your ECCE online and they are mentioning that how many courses are running ah what are the target groups and here you can see the course material the training online courses schedule different tutorials are available gallery of videos and images are there training reports and showcase practice are also there but i will go only one part i am interested that we can ah see that how it works

So, we will see the tutorials available or we will see the training online course schedule. The schedule we will not see we will go for the tutorial. So, that we can see that how tutorials are working what they are providing. So, here you will see that if we are going going to see the tutorial we can go through the NISHTHA website and they will show the document tutorial and the video tutorial. So, we will go for the video tutorial and you can see that they are so, many YouTube videos or placed on the NCERT's ah YouTube page are already available and we can go through it we can search and if what kind of course or the information we want we can go through it.

So, this was all about your teacher's professional development part 1 and next time we in next lecture we will go for the part 2. We can conclude that India has a strong institutional framework for teacher's professional development through national state and district level organizations. Digital platforms like DIKSHA, SWAYAM, NISHATHA further strengthen the continuous professional learning with NEP 2020 there is a renewed emphasis on the teacher capacity building etc. ICT integration is focused, given focused.

And the competency-based training institutions like NCERT, NIEPA, NCTE, different SCERTs and DIETs play a important role in improving the quality of teacher education and professional development. The NEP 2020 has already emphasized that the continuous teacher training, digital learning platforms and competency based pedagogical approaches to enhance the teaching learning process and the teaching profession in India. So, these references I have given for you, I hope you will go through it.

Thank you.