**Education for Sustainable Development**
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Lecture - 44
Sustainable Education (Contd.)

Welcome viewers. Welcome back to the class on ESD; Education for Sustainable Development. So, in the last class we are discussing about Mezirow's transformative learning theory and what are the ten steps that we have already discussed, now let us to continue with that.

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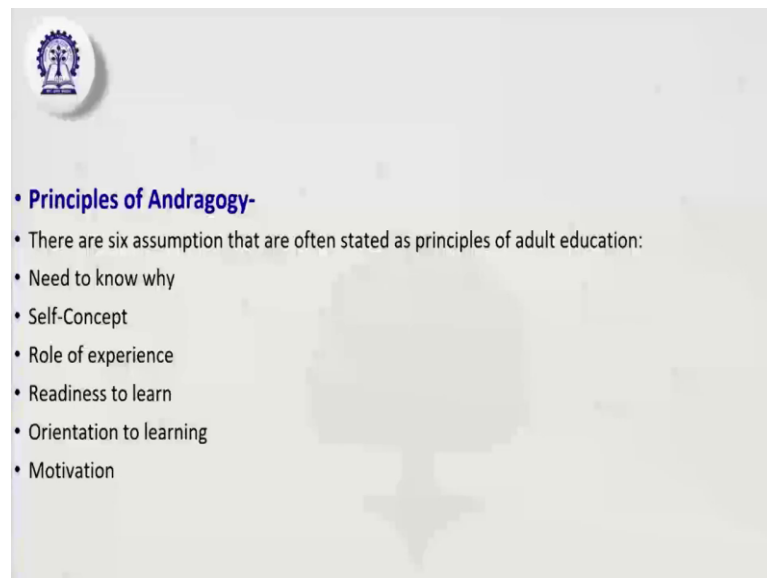
So, principles of andragogy; so, let us define what is andragogy pedagogy is the science and art of teaching, but andragogy primarily deals with adult education. So, andragogy again the same thing that is science and art of teaching for the adult learners ok. So, here we can see there are six assumptions that are often started as the principles of adult education.

So, what are these principles of andragogy? Need to know why. So, when the adult learner learns he has to understand he has to understand why he is learning. The know-how is not only the know what and know-hows, but know why also why he has picked up a subject, why he is learning a subject, how it is going to add value to his career or the life etcetera. So, that is called the need to know why, so why of learning.

Then self concept his self own self concept like his idea about his self concept about his own abilities, disabilities, strengths, weaknesses you know personality. Also what, how much he knows about himself that is a self concept self identity yeah. Role of experience of course, past experience plays a very vital role in learning. So, role experience role of experience is that whatever background experiences, learning experiences, practical experiences he is having.
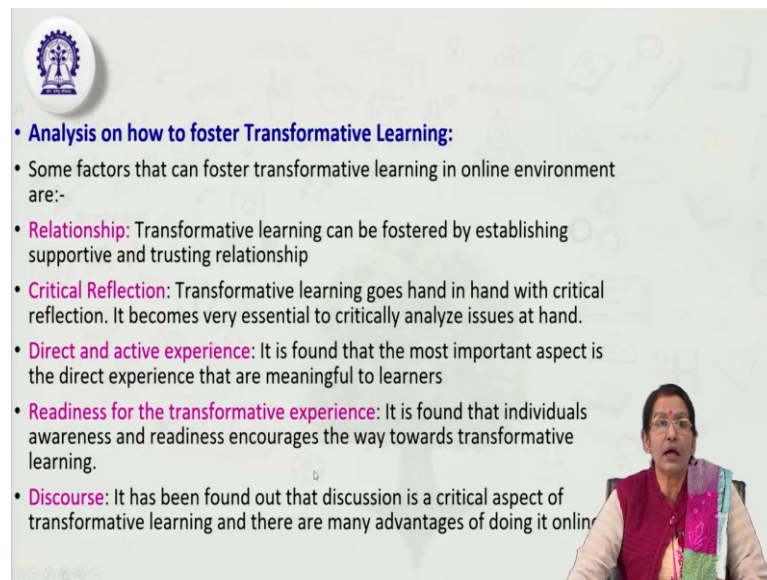
So, role of experience, readiness to learn readiness to learn is that whether the learner is prepared to learn or also not. That is his primary deals with the motivational aspect whether he is not only developmentally or in terms of the cognitive ability he is ready, but also in terms of motivation also he is ready to learn, he is willing to learn that is the preparedness for the learning.

Then, orientation to learning; so, what is the what is his orientation towards the learning, what is his background what is his you know entry behavior like the current knowledge. And what is his again motivation is whether he is only extrinsically motivated because he has to complete it for some degree qualification or so and so or actually I mean; that means, basically or inherently or you can say intrinsically he is motivated he is motivated to learn something.

So, that is why these are the six principles that is need to know why he is learning, self concept about his self, ideas about his individual self, abilities, weaknesses, competency, skills everything. Role of experience, what sort of experience he has already gathered that is his past learn from his past learning and practical experiences.

Readiness to learn that is the preparedness to learn to take up a course then orientation towards the learning what is his background. That means, what is his already existing orientation towards the learning, motivation that is the how much he is motivated externally and intrinsically. So, these are the factors that determines the andragogy.

So, now let us discuss about the analyzing analysis on how to foster transformative learning. So, being the having these principles being; that means, taking into account these basic principles of andragogy now let us see how transformative learning can be fostered in case of the adult learners.

So, again these are some of the factors that can foster the transformative learning in the online environment. And the physical environment offline environment definitely that the steps that we have followed or may we can say the Kolb's experience and learning model facilitates a lot. Now, in the online mode how it is possible how transformative learning can be enhanced.

So, first thing is the relationship, relationship is the transformative learning can be fostered by establishing supporting and trusting relationship. Here again online the individual that everywhere, so the physical distance is there. Everybody all the participants all the learners they are learnings remotely with their own instrument with their own set up and but the physical distance is there.

So, here then the learning community in the learning environment or in the you online classrooms there must be you know support system, there must be supportive and trusting relationship between the you know between the learners and the mentor or the teacher or the tutor and the learner and the co learners and the peers. So, there must be a

kind of you know supportive environment, trusting relationship is there even in the online platform then only transformative learning can be fostered ok.

So, then the critical reflection, critical reflection is you know its the metacognitive skill that is to reflect on not only individuals own learning process, but to analyze the problems on the topics at hand. So, critical reflection through critical reflection transformative learning goes hand in hand with the critical reflection, because it becomes very essential to critically analyze the issues at hand.

So, suppose when you are being you are the learner is being is exposed to any kind of particular topic etcetera. So, he should start analyzing its, analyzing its in dimensions aspects etcetera. So, whatever he is taking up as the current topic. So, he has to analyze it critically evaluate it. So, it becomes very much essential for transformative learning to critically analyze the issues at hand then only.

Because without critical analysis evaluation you cannot you can move ahead you cannot. That means, you know you cannot find out that is effectiveness, innovativeness or you know what is wrong with it and how to dissolve how to resolve that dilemma, conflict all kinds of things. So, then how to you know how to formulate the strategy to experiment on this.

So, transformative learning goes hand in hand with the critical analysis, critical reflection of what is the topic that the learner is at present going through. So, then direct and active experience of course, direct and active experience is very important it is found that most of the important aspects of direct experience and that are meaningful to the learners. That through theoretically or online platform only sitting in the classrooms whatever we are learning we have to experiment it on the field.

So, that is why the experience or learning or the direct an active experience maybe that he has picked up the problem from the classroom and he has to you know he has to analyze it in the grassroot level or in the ground in the reality. So, then that kind of direct and active experience will foster will further enhance the learning.

So, again then readiness for the transformative experience, readiness for the transformative experience that the learner must be aware of or must be ready; that means,

and ready to; that means, to move ahead throughout the transformative learning process. Because now if the individual awareness and readiness encourages them.
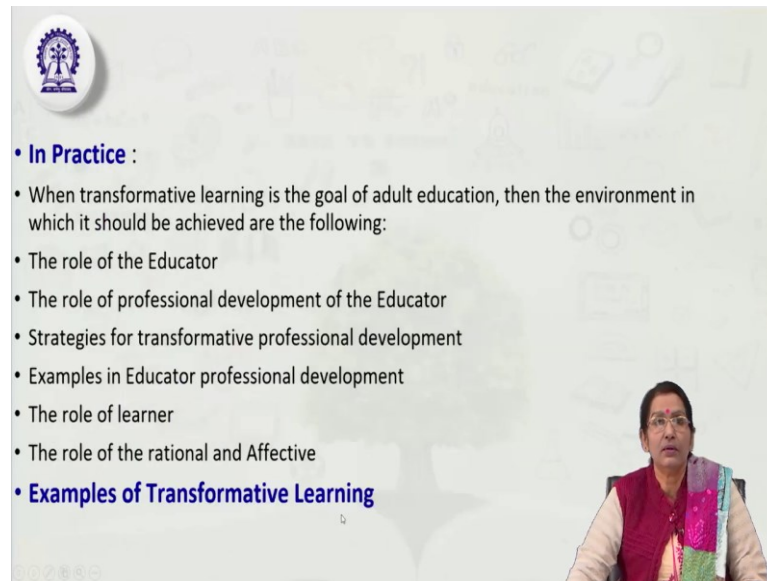
So, he must be intrinsically motivated he must be self encouraged and must be aware of you know aware of the transformative learning. That means, the transformative learning steps and how it is the how they are going to achieve it, how they are going through to going through this process to learn the concepts.

So, readiness for the transformative experience like what whether the learner the learner is ready properly ready on the prepared to or experience those transformative learning experiences or not. Then the discourse; discourse that is the discussion, the dialogue the dialogue having the discussion and dialogue on the critical aspects of the transformative learning.

There are many advantages of doing this in online you know now we can that this discourse can take place through online conversation, online chatting, online discussion, online through Google Meet and all kinds of the Zoom and all kinds of learning platforms even though Moodle also LMS through also LMS also.

So, this can be facilitated and the critical aspect of the transformative learning can be carried out even in the online process. But provided the learner is ready and willing to learn from the transformative learning. Because transformative learning requires the critical thinking, active participation active participations and you know reflective thinking all kinds of higher order thinking skills are required for transformative learning. And the learner should be prepared for that besides motivation ok.

So, the now in practice, how the in practice transformative learning can happen? So, when the transformative learning is the goal of adult education then the environment should be the in the environment in which it should be achieved, must should fulfill this criteria the role. It is the role of the educator what is it has to be very much specified that what is the role of the educator, the role of the personal professional development of the educator who is going to educate the learners, who is going to train the learners.
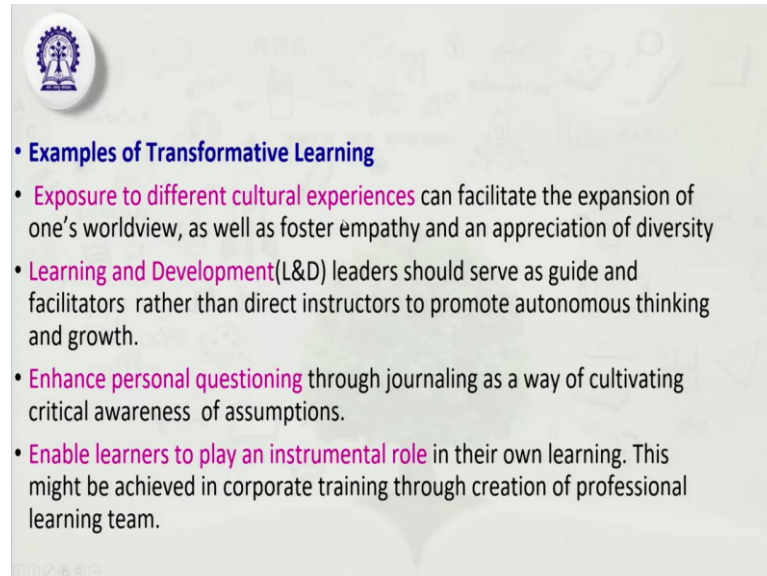
So, what is his professional development background then the strategies of transformative learning, transformative professional development strategies, what strategies they are going to adopt for this transformative professional development. Then, examples in the educators, examples in the educator professional development, the role of the learner and the role of the; role of the rational and the effective domain.

So, here you can say for transformative learning to carry on in online platform. So, the educators role is very important here. So, the role of the educator to be very specific and his professional development, the his background, his you know his strategies he is going to think going to adopt. Then, the role of the learner what would be the role of the learner, what the learners are expected to perform and do.

So, the role of; the role of the rational and effective here again. So, here first the two aspects are there rational is the cognitive; that means, logical analysis would be very

much required and effective is that willingness, the motivation the; that means, interest and passion for learning that things in the transformative learning environment.

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So, some of the examples we can see some of the examples of transformative learning as you can see. Like examples of transformative learning like exposure to different cultural experiences that can also facilitate the expansion of ones worldview foster empathy and appreciation of diversity.

That we have already discussed that how cultural diversity, cultural experiences, cultural exposure, multicultural you know knowledge etcetera or you can say the cross cultural intelligence facilitates in understanding in understanding the different cultural issues, unique features and their habits and you know their traditions. So, those things will help in broadening the learners worldview.

So, that is why facilitating the expansion of world view of the learner through exposing to different cultural experiences that can also further enhance the empathy and appreciation of the diversity. And it enhances increases the perspective, increases the broader outlook and the individuals perspectives.

So, learning and development also again leaders should serve as the guide to and the facilitator. They should guide and guide and facilitate in you know in guiding in terms of the resources available in terms of promoting the autonomous thinking and growth. And

guiding them how they can strategically use the platform how they can strategically approach the learning by using the different ICT tools etcetera towards the goal achievement.

And the you can say more of permanent learning experience. So, that is the leaders they serve as the guide, as a mentor, as a facilitator to give the to you know rather than only giving instruction. But rather than only giving instruction they can promote they can promote the autonomous thinking, independent thinking, reflective thinking, creative thinking and growth the psychophysical growth of the learner by playing the role of a mentor, a guide, a facilitator, a friend like these thing.

So, then the enhancing the personal questioning through the journaling as well as cultivating the critical awareness of assumption. So, during the discussions during this learning period the learner should also be you can say motivated, encouraged for asking many questions, queries to participate in the journaling. And journaling in the discussions, in the discussions, in the debate having that discourse, dialogue all kinds of arguments, discussions and peer to peer discussion.

Then group learning group discussion. So, and asking questions formulating hypothesis critical awareness assumptions making assumptions and validating it all these kind of things this is called the enhancing the personal questioning. So, this is here the learner will learn how to ask questions. So, how to know, because he is a why of learning is also is not know-how and know what, but it is a why of learning.
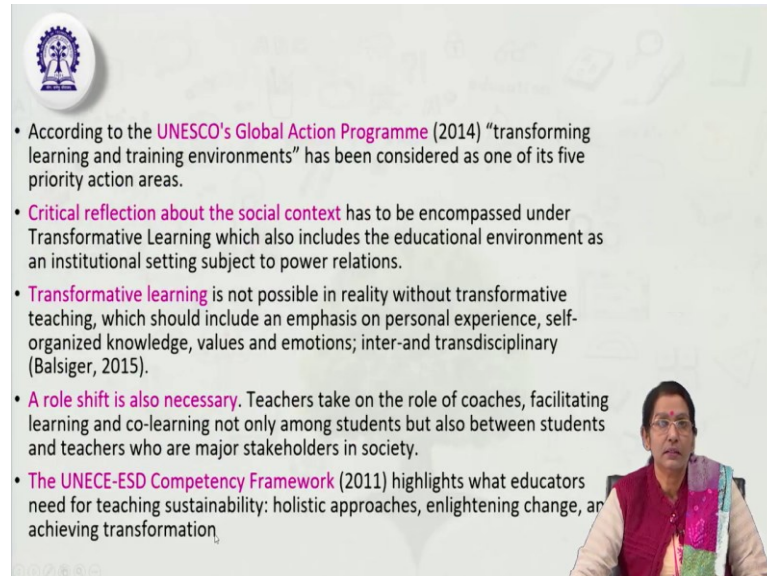
So; therefore, encouraging the learners to ask many many questions through journaling, through assumptions, through critical awareness etcetera etcetera. So, then again enable the learners to play an instrumental role. In for example, instrumental role in that in their own learning; that means, they are the key stakeholder in their own learning process they are they have taken the responsibility. So, that might be; that means, that is that might be achieved in corporate training through creation of you know creation of professional learning team.

So, enabling the learner to play an instrumental role not in their own learning taking the ownership and at the same time this can also be achieved through corporate training through the creation of the professional learning team. So, the professional trainers are

there to educate, to learn, to motivate, to enable the learners to be independent learner. So, enable the learners to play an instrumental role in owning their own responsibility.

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So, now according to again UNESCO global action plan transformative learning and training the environment has been considered as if one of the first five priority action areas. So, transformative learning activities are training and development environment has been considered as the one of the five priority areas, five priority action areas. What are these areas? Critical reflection about social context, because as we know in sustainability three domains are there social, environmental and economical.

So, here critical reflection about social context ok that has to be encompassed under the transformative learning. Because unless and until you identify an issue and critically evaluate the social issues social issues that includes the environment and educational environment as well as the as in as an set up as an institutional setting set up.

So, to subject the, so to subject the power relations; that means, to discuss the social issues to analyze its different dimensions in which context the; in which context it is happening. So, that includes the educational environment as well as the institutional setting subject to power the relationship ok. Transformative learning is not possible in reality without transformative teaching.

So, in order to examine it examine it or experience the reality or experience self for enabling the experience of learning transformative learning should be accompanied by the transformative teaching. So, it has to begin with transformative teaching and training to some extent. That will include that that should include the emphasizing on personal experiences how the learners will be motivated to analyze his past experience personal experience.

Then how he will be able to learn; that means, self organized knowledge whatever he has I mean learn in the past how he is going to organize itself organized knowledge, values, emotions then interdisciplinary and transdisciplinary subjects etcetera. So, it has to be initiated through training teaching formal teaching and training and thereafter the learners will be exposed to reality for transformative learning in practical sense; that means, in resolving the dilemmas and the issues.

So, a role shift is also necessary here the shifting the role is also very important like teachers to take as the role of a coaches, as the mentor, as the facilitator, as the guide. So, instead of giving only formal instruction they have to facilitate the whole learning process it is again we can say it is a co learning process. So, they also along with that students they are learning together, so co learners. So, learning and co learning co learning not only among the student, but also between the students and the teachers who are also major stakeholders.

So, its again the shift or teachers role is not just as an instructor, but also he is a learner himself, he is a co learner along with the students as well as the other teachers who are who are also directly or indirectly related to the issues or they are also the major stakeholders of the society. So, role shift is also needed.

So, here again why we say that teaching is a job of you know continuous learning lifelong learning for this because for the teachers they have to learn also throughout the life. So, the role shifting like from the only teachers to take the role of a coach, a mentor, a facilitator, a guide, a friend and a co learner.
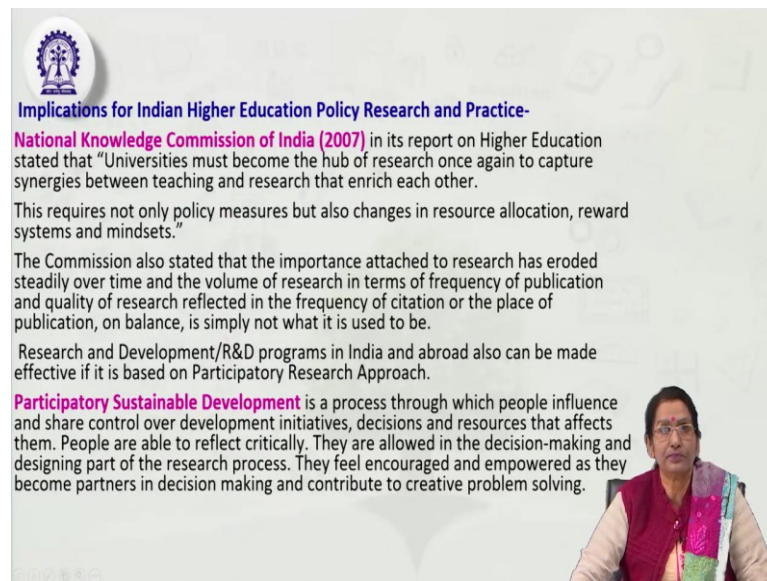
Then United Nations ESD competency framework even ESECF and ESD competency framework it highlighted that the educators need for teaching sustainability the holistic approach, enlightening the change and achieving transformation, enlightening the change and achieving the transformation.

So, UNESCO ESD competency framework in 2011 it has already highlighted, it has already stated that the educators of educators the need for teaching sustainability also as a sustainability as a concept also they have to expose it with a holistic approach.

The holistic approach like whole institution approach, holistic perspective, holistic approach enlightening the change that how we are focusing on and envisioning the change for the future, sustainable future what are the changes required for having the sustainable future and achieving how the transformation can be achieved.

So, this competency the teachers, the educators, the trainers, the mentors they should also develop they should also know learn about the sustainability competences and they should also learn a. So, learn the competencies that is mentioned in the UNESCO ESD competency framework.

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So, here I can say that is this is the implication for then let us see what is the implication for Indian higher education system. Higher education policy and research the National Knowledge Commission has come up in 2007. So, National Knowledge Commission has come up in 2007 which stated that the universities must become the hub of research once again to capture the synergies between teaching and research.

Here we have to; that means, one is that knowledge commission and second is the participatory sustainable development. So, again and again this policy you know national

policy and education National Knowledge Commission emphasize that along with the teaching higher education institution should also carry forward the research.

Because research can enrich the teach teaching not only the teaching through research also so many social issues and the; social issues and the problems can be can be resolved. So, it requires not only the policy measures, but also changes in the resource allocation, reward systems, mindset.

So, now, there is a rules and regulation in terms of fellowship in terms of you know student exchange programs in the in terms of you know collaborative degrees like the MOUs between one Indian universities and the foreign universities. MOUs, dual degrees and the you know student exchange program, faculty exchange program, offering the internship to do it in other universities abroad.

So, these are some of the facilities to be introduced to that is to enrich and enhance not only the teaching in higher education, but to develop a kind of research mindset. And through research and how research, applied research both the basic research and applied research are important. But you know research followed by the publication quality of research they should reflect on the you know take up the social issues.

So, social issues are which will which can be implemented; which can be implemented for the resolving the social you know social problems or these things. In this way we can also address our research towards the sustainability also. So, R and D in India in even in corporate sector it is already there, but in Indian universities and the higher education institution it should be.

Again it should be effective it should be made effective based on the participatory research like industry academia collaboration, industry you know private universities collaborations, so PPP model.
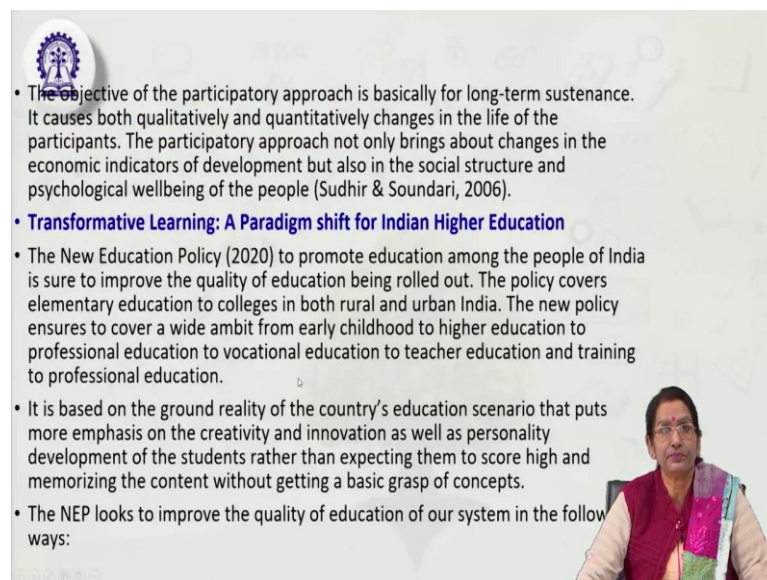
So, that is it is kind of we can also adopt a participatory research approach. So, here we can say a participatory sustainable development is the process that is in which people influence the and share the control of over development. So, all the major stakeholders like you can say it is a multi stakeholder kind of initiative. So, all the stakeholders they play key role in taking the initiative in decision making, in resource allocation and think and reflect critically.

And they are also allowed to take the decisions and design some of the part of the research and they are they are also empowered to become partners in decision making and contribute towards the creative problem solving. So, participatory sustainable development programs through you know through collaboration through collaboration and multi stakeholder approach can also be initiated.

So, teaching accompanied by the research followed by the quality publications and different and for strengthening or strengthening this research. Then different kinds of you know policy frameworks can be done like exchange program, fellowships all kinds of things you know inter university and collaborations across the globe. And participatory sustainable development approach should be adopted for especially for the Indian education system.

So, the transformative learning implication for Indian higher education system is that it is it has to promote the research and practice which can bring transformation not only in our education system, but in our society.

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So, therefore, transformative learning is actually is a paradigm shift for Indian higher education it is a paradigm shift for Indian education. New Education Policy 2020 also advocate it for to promote the education among the people in India to improve the quality. Not only the quality of education, but you know all kinds all the targets all the

targets of all the targets of quality education, SDG 4 a global citizenship, global partnership as well as all the 17 goals all the 17 SDG goals.

So, the policy it covers the elementary education to college both rural urban across the country the new policy ensures the how the quality of education can be enhanced from the grass root level to the higher education level ok and how to promote creativity innovation how to promote reflective thinking critical analysis. So, therefore, how national education policy looks into the improving the quality of education of our system ok. So, that is the transformative learning paradigm shift for the in a higher education.

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- 1. Change in the pedagogical structure
- The 10+2 board examination structure has been dropped; the new school structure will be 5+3+3+4, which comes as a big relief; would prove revolutionary, if implemented in full faith and paper. While most of the existing private schools already have the Elementary Child Care Education/ ECCE embedded in their system and will only have to make a slight change in the class structure and objectives of the change.
- 2. Transforming the Teaching-learning Process
- a. Focus on core essentials: Mapping of the curriculum across grades and narrowing it to the respective core knowledge only. The focus will be on practical application-based learning. This reduction will create space for teachers to add activities related to experiential learning, creative thinking and critical skills.
- b. Stress on the importance of literacy/numeracy skills: All schools will have to rework in these areas to bring about a transformation in the teaching strategies so that these foundational skills can be developed, strengthened and achieved by Grade 3. There will need to be more focus at an early age on reading, writing, and learning of basic mathematical concepts. Introducing innovative teaching would be essential to achieve this.

Now, then change in the pedagogical structure for example, the new education policy advocates the change of pedagogical structure as you can know 5 plus 3 plus 3 plus 4. Earlier is the 10 plus 2 board it was dissolved now the new structure is class up to 5; class 5 primary, 5 then 3; 6, 7, 8 7, 8 then 9, 10, 11 then plus 4 year, so which comes a big relief ok.
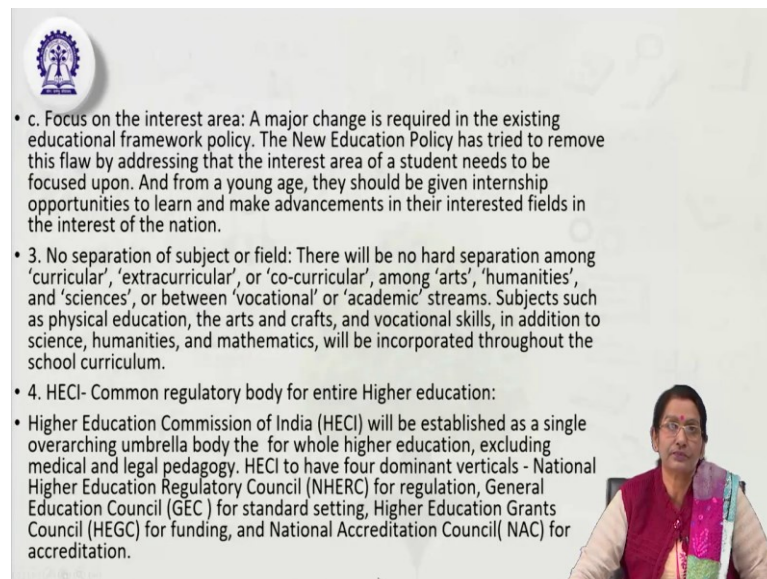
Because it also includes some opportunities for the vocational education and even if somebody drops out in between in between they can also follow up they can also carry forward the learning process later on. So, similarly transforming the teaching learning process is also required. So, focus on the core subjects is essential mapping the curriculum across the grades, narrowing the respective core knowledge these are emphasized.

Then again practical application of knowledge ok practical application of knowledge thinking, critical thinking, creative thinking, skills, experience and learning all these things have been emphasized. Then similarly at the lower level stress on the importance of literacy, numerical skills, computational skills etcetera are very much required very much important.

So, that you know, so that the these area can bring transformation in the teaching strategy, so that the foundational skills can also be developed. Foundational skills, numerical skill, numeracy skill, literacy skill, computational skill these are some of the basic skills can be developed ok. So, therefore, the focus should be given not only at the earliest age of reading, writing, learning and basic skills, but also introducing innovative teaching innovative teaching would also be essential to achieve this.

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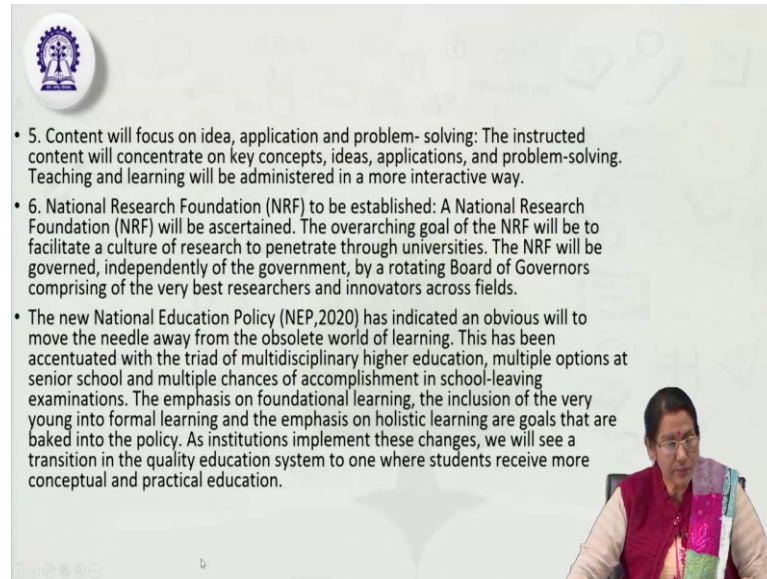
So, these are some of the you can say some of the you know specifications of the National Policy of Education that you can go through like curricular extracurricular co curricular things are there. Then Higher Education Commissions of India then regulatory councils these are thing already there you can go through it these are the National Accreditation Council.

So, these are the all the you know detailed policy structure of the National Education Policy - 2020 that you can go through it.

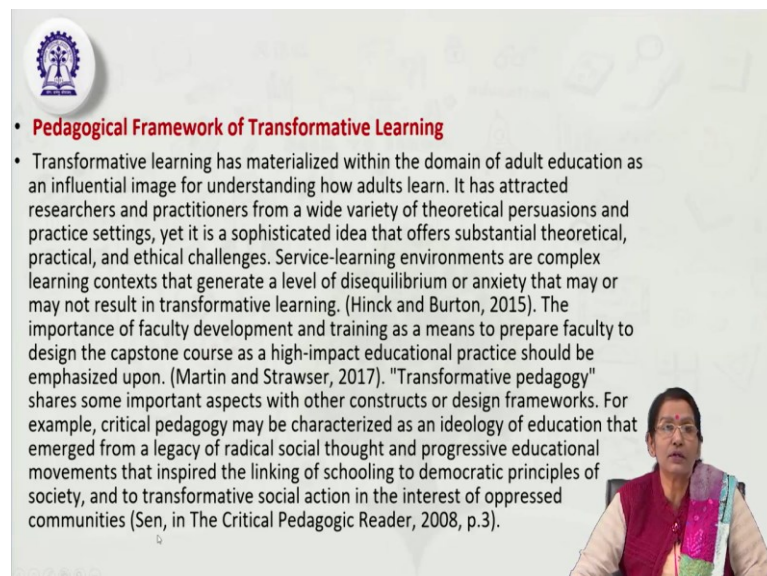The National Research Foundation; similarly, National Research Foundation also to be established. Then and the National Education Policy 2020 also indicated that the how the obsolete; that means, how to how to get away how to get away how to get rid of the obsolete world of learning. And how to step into the multi disciplinary higher education multiple options and the senior school multiple chances of accomplishment.

Then institution implement the changes that which will bring the transition in the quality education all these things have been narrated in the national policy education.

So, pedagogical framework of transformative learning pedagogical framework of transformative learning as you know it has already mentioned that domain that is within the domain of adult education as in education how the adults learn. So, how the adults learn? Actually, we have to understand the you know understand how the adults learn what is the learning style of the adults.

So, the and it has also attracted; that means, also it has to attract the researchers practitioners on a wide variety of theoretical persuasion as well as the practical setting ok. So, there are also different kinds of practical you know practical challenges ethical challenges are there because in service learning environments are of course, often very complex very complex and you know how to maintain the quality.

So, the faculty development programs, continuous learning problems programs, training as a means of thing and workshop, regular workshop high impact educational practice. So, therefore, transformative pedagogy share some of the important aspects with other constructs or the design framework for example, critical pedagogy. So, here comes a critical pedagogy theory. Critical pedagogy may be characterized as the ideology of education. So, critical pedagogy theory advocates that how we should take up the social issues critically evaluate in and find out the solutions.

So, critical pedagogy is an idea is base actually is based on an ideology based on the ideology and emerge from the legacy of the traditional social thought and progressive educational movement. So, and linking this to the schooling to democratic principle of society transformative social action that is the interest of the oppressed communities.

Actually, this critical pedagogy theory has come up as in you know as the as an outcome of social ideology social ideology or radical social thoughts when the you know philosophers the researchers they have started deeply speculating about the social issues, the causes of these issues social.

Now, the especially for the oppressed communities the you know the interest areas or the you can suffering some of the oppressed communities and the social issues, the cause and effect relationship from all these kind of analysis actually the critical pedagogy theory has come up. And it also plays a very important role in transformative learning and the pedagogical framework in case of higher education ok. So, now, I am completing it right now next class we will continue with other aspects ok.

Thank you.