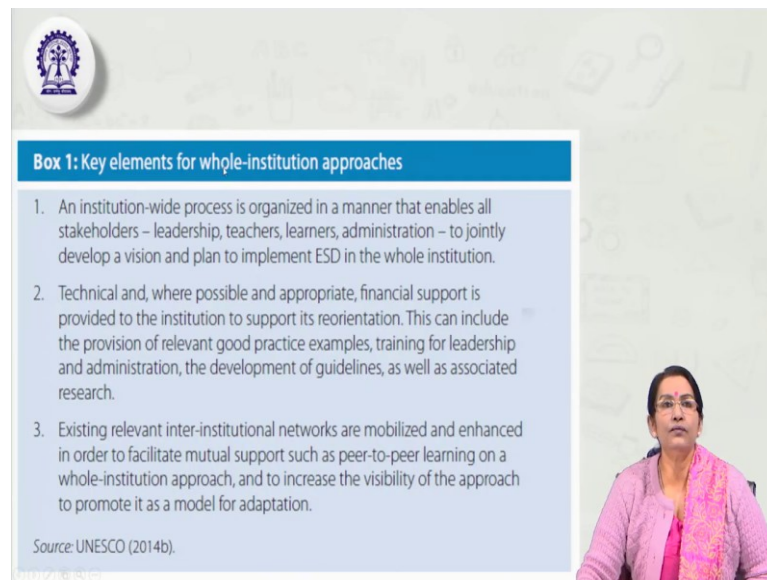


**Education for Sustainable Development**  
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**Lecture - 40**  
**Sustainable Education**

Welcome viewers, welcome back to this course on Education for Sustainable development. So, in the last class we are discussing about we have just started the discussion about the whole institutional approach. So, today we will just explore the other aspects and the different dimensions of this whole school approach

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**Box 1: Key elements for whole-institution approaches**

1. An institution-wide process is organized in a manner that enables all stakeholders – leadership, teachers, learners, administration – to jointly develop a vision and plan to implement ESD in the whole institution.
2. Technical and, where possible and appropriate, financial support is provided to the institution to support its reorientation. This can include the provision of relevant good practice examples, training for leadership and administration, the development of guidelines, as well as associated research.
3. Existing relevant inter-institutional networks are mobilized and enhanced in order to facilitate mutual support such as peer-to-peer learning on a whole-institution approach, and to increase the visibility of the approach to promote it as a model for adaptation.

Source: UNESCO (2014b).

So, the key elements of whole institution approach ok. So, in the last class we have discussed about the different aspects starting from the administration to the community participation, to the curriculum content teacher training to you know to the infrastructure everything. So, the key elements of once whole institution approach is like, an institution wide process is organized in a manner that enables us the stakeholders like all the stakeholders like leadership, teachers, learners, administration, then community participation that public relation officer, liasoning officers.

So, they are supposed to jointly work together, supposed to develop the vision, develop the plan, develop and implement the plan and work together on the vision of implementing ESD in the whole institution. So, that is the multi here I can say the multi

stakeholder approach in ESD implementation. Then second thing is that technical and other possible appropriate financial support, infrastructure ok in the and institutions support for the reorientation of the staff.

So, this also includes the you know very good relevant practices and examples training, inviting the experts to give the training, orientation refresher courses and training for the leadership also, training for the administrative staff and the development of the guidelines like the action plans maybe yearly action plans, annual action plan and half yearly and action plans.

So, all these things will be incorporated and should be also associated with the research perspectives because research actually enriched the whole thing and there were not only the teaching not pedagogy, but also the every aspects of the institution. So, research to be accompanied with associated with this all this. So, infrastructure, support system, training, reorientation even guidance and counseling, sale, then sustainability sales are also there.

Then you can say refresher courses, training courses, orientation course continuous learning process, sales are also there, administrative staff is there, logistic is there, infrastructure is there, library is there and library is there and technology support is there. So, all these things to be put together in a very comprehensive way in a very systematic way to implement the action plans 5 year action plan or the yearly action plans and that or the half early action plans. So, and well associated with the research facilities.

So, research facilities so for the students, for the teachers and for the other senior leaders. So, then next is existing relevant inter institutional network. So, the institution being situated in a particular location in a context and started since a long time or whatever, it has already developed a kind of network. So, how to mobilize that network? So, inter institutional network, what are the other institutions in that area, in the cities or in the towns etcetera?

So, and what is the liasoning work, what is the network of this particular institution to other institutions? And other institution not only the academic institutions, but also health or health institutions, health organizations NGOs even the in administration also, state administration also and other international bodies like the UNISEF and UNESCO and WHO so and all kinds of things.

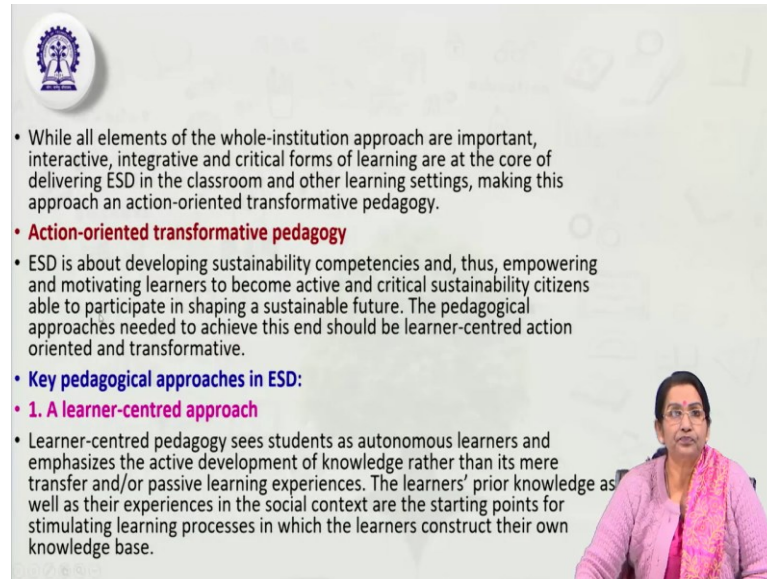
So, what is the inter institutional network that is already existing and how to strengthen this? So, already existing networks can be mobilized and enhanced to facilitate the mutual support such as peer to peer learning, training whole institution approach, maybe some arranging some intervention program, maybe arranging some awareness camp.

Maybe engaging the community people, neighborhood people for any kind of you know not only health check up, vaccination, but also you know for kind of you know self help group for you know for initiative some community activities NSS activities. Maybe some handicraft exhibition maybe the you can say local food or local objects, local things, local products agricultural products, local handicrafts, local teaching aids all kinds of things can be organized with the help up this institutional network and also to strengthen further and to strengthen further by expanding the network.

So, this institutional inter institutional network and expanded network actually helps in not only enhancing the capacity, capability and the activities of the institution, but also the reputation, the reputation and recognition of the institution across the state. So, that is a it also enhances the you know recognition that is the brand name or you can say the status of the institutions, in the society, in the community among the stakeholders.

So, that is where that is the. So, how to develop the inter institutional network and to leverage it, to mobilize the resources, to expand the network that is one thing then again with the technical support and other appropriate financial support etcetera. How to develop the five year plan, yearly plan, half yearly plan, quarterly plan and organize the continuous learning training programs etcetera to follow the guidelines and implement the ESD policies. Similarly, the institutions multi stakeholder partnership for ESD implementations.

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• While all elements of the whole-institution approach are important, interactive, integrative and critical forms of learning are at the core of delivering ESD in the classroom and other learning settings, making this approach an action-oriented transformative pedagogy.

• **Action-oriented transformative pedagogy**

• ESD is about developing sustainability competencies and, thus, empowering and motivating learners to become active and critical sustainability citizens able to participate in shaping a sustainable future. The pedagogical approaches needed to achieve this end should be learner-centred action oriented and transformative.

• **Key pedagogical approaches in ESD:**

• **1. A learner-centred approach**

• Learner-centred pedagogy sees students as autonomous learners and emphasizes the active development of knowledge rather than its mere transfer and/or passive learning experiences. The learners' prior knowledge as well as their experiences in the social context are the starting points for stimulating learning processes in which the learners construct their own knowledge base.

So, the next is that, so these are the main three important. So, while elements of the whole institutions are important. So, integrity when the critical forms of learning are also the are also the core of the delivering ESD. It is not just enough to implement the ESD syllabus curriculum etcetera etcetera, but also to implement the to adopt to apply the integral.

That means, critical form of learning and pedagogy reflective thinking, reflective pedagogy, contemplative learning these kind of things should be incorporated with the ESD; ESD principles and ESD content. So, ESD will be there, but along with the pedagogical forms like you know critical form of learning, critical thinking, creative thinking, then contemplative thinking, then experiential learning, contemplative education, transformative learning all and even also technology is already there.

So, all these things blending all these things, so this blended more of you know ESD implementation in the classroom atmosphere in the institution, will be more beneficial be more effective. So, that is why it is it should be and making it more action oriented transformative pedagogy because ultimately our goal is to how to bring transformation in the society not only within the institution, but outside the institution that is in the community, in the society neighborhood. So, that is why how to bring transformation in our pedagogy?

By implementing introducing new concepts; new concepts like critical thinking, creative thinking, reflective thinking, experiential learning, collaborative learning and you know blend having a blended approach towards both online and offline that is technology blended deep learning as well as the as well as the opportunity for the experiential learning action research all kinds of thing by blending together we can we can adopt a we can prepare a action oriented transformative pedagogy along with the ESD; along with the ESD content syllabus etcetera.

So, then that can only bring the changes that can only the bring the impact positive impact not only in the minds of the stakeholders, but also in the environment in the community in the neighborhood. So, that is the action oriented transformative pedagogy. So, what are the, what is action oriented transformative pedagogy? So, that is ESD is about developing sustainability competences, ok.

So, empowering and motivating learners to become more active and critical thinkers and critical sustainability citizens; that means, who not only who are not just satisfied who are not just passive they are also active thinkers, active practitioners, active citizens like whatever they are seeing they are observing they are looking around in terms of practice things etcetera.

They critically evaluate it; critically evaluate it evaluate its pros and cons and try to put it in the sustainability platform either by changing it suggest changing it or making them aware the stakeholders or adopting the self sustainable behaviors and also teaching or educating others regarding the sustainability competences. So, they become critical and sustainability citizens. So, being the global citizens, so they are now more aware of not just environmental sustainability, but economic sustainability, social sustainability everything.

So, they become the sustainability citizens and also they are able to participate in shaping the sustainable future because when all the stakeholders; all the stakeholders will be very conscious very alert about the sustainability aspects and very and think themselves as the global citizen and having the responsibility of nurturing caring for care caring not only for the present generation, but for the future.

So, they become more responsible more active in implementing or in executing this action oriented transformative pedagogy, then only then only the transformation can take

place. So, the pedagogical approaches therefore, needed to achieve this end and should be learner centred action oriented and transformative.

So, here learner centred more toward; that means, the educator the teachers are there to facilitate to as act as a mentor etcetera, but the active participation of the learners of the students of the are very important. So, they have to be engaged in different kinds of action research projects in collaborations in you know in probably in the in experiential learning projects. So, they have to undergo all kinds of the experiences, all kinds of learning.

So, be it; that means, to bring transformation. So, they have to be a part of the experiential learning realistic problem solving situations project oriented; project oriented learning, then you know group assignments, team work, then and NSS work like the NSS work or you can say they are. So, they will be engaged they should be engaged in all kinds of academic and non academic and social socio economical service oriented activities.

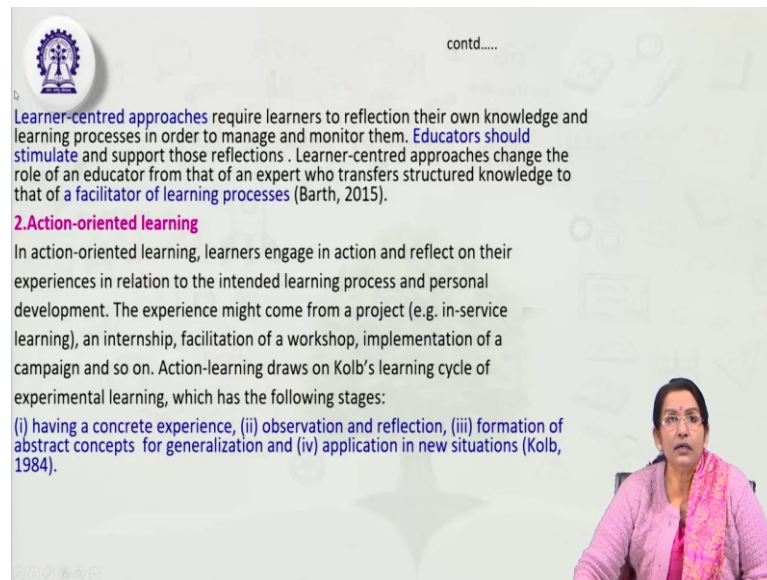
To make them not to not just make them more responsible involved and engaged, but they can only spread they can only enable or empower others to educate regarding the transform sustainability and how to bring transformation in the positive transformation in the society. So, they will be the major you can say messengers, the change catalyst to bring that transformation in the society. So, the key, so here the key pedagogical approach in ESD here in action oriented transformative pedagogies that yes definitely, it has to be learner centred.

So, learn learner centred pedagogy sees the students as autonomous learner, independent learner. So, they have to emphasize on the active development of knowledge not just knowledge, construction of knowledge, creation of knowledge, transfer of knowledge, then learners prior knowledge as well as the experiences to be transformed into the social context.

So, stimulating the learning process in which the learners construct their own knowledge base, reconstruct, create the create new knowledge try to experiment on it, implement on it for the social benefit. So, they will be now in involved and engaged not only in the problem solving activities, but also creation of knowledge and the scientific temper and innovations also.

So, that is the whole activity the whole teaching learning process and pedagogy should be learner centred. Starting from the learners needs, choices, objectives, goals to the learners behavioral outcome performances and how he can become a change agent in bringing the transformation in the society.

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**Learner-centred approaches** require learners to reflection their own knowledge and learning processes in order to manage and monitor them. Educators should stimulate and support those reflections . Learner-centred approaches change the role of an educator from that of an expert who transfers structured knowledge to that of a facilitator of learning processes (Barth, 2015).

**2.Action-oriented learning**

In action-oriented learning, learners engage in action and reflect on their experiences in relation to the intended learning process and personal development. The experience might come from a project (e.g. in-service learning), an internship, facilitation of a workshop, implementation of a campaign and so on. Action-learning draws on Kolb's learning cycle of experimental learning, which has the following stages:

(i) having a concrete experience, (ii) observation and reflection, (iii) formation of abstract concepts for generalization and (iv) application in new situations (Kolb, 1984).

So, the learner centred approach also also requires the learners to be reflective. As we have already discussed reflective thinking, reflective then reflective you know reflective thinking, reflective analysis. And not only of their own knowledge of, but also the whole learning process, getting the feedback; getting the feedback and how to you know how to develop the healthy learning habits of mind, positive habits of mind.

So, and again how to make it part of your study habits, then educating others, then peer review, peer feedback, tutoring, peer tutoring, then not only reflection on our on the own performance, but also on, but also evaluating monitoring giving feedback to the peers learning process there. So, learner centred approach actually to. So, it also approaches also change the role of the educator also here the educators they act as an expert who actually transports the structured knowledge to that of the facilitator of the learning.

So, they are not just the press. So, unlike the traditional approach, the teachers educators are not the you know prescriptive or active you know active tutors like who prescribes everything and the learners where you know the at the receiving end, but rather. So, they are the facilitator they will just give you the guidelines the facilitate the monitor to show

you the path, but here learners they become the active participants of the whole teaching learning process.

So, reflective thinking, reflective learning and then critical evaluation, critical thinking, creative thinking should be the on the should be practiced on the daily basis on the regular basis, so that it becomes a part of the students study habits. So, that automate after sometime with the regular practice it becomes automatized. So, when with when it becomes automatized means it gets embedded in our cognition our cognitive process.

So, with that we also enhance, we also the learners also will be able to develop the metacognition; metacognition that is the understanding our own cognition. So, that they can find out their strengths and weaknesses and accordingly change the strategy learning strategies and strategies and channelize their effort and motivation and energy towards the positive direction.

So, how to empower learners? All ultimately this transformative pedagogies objective goal is that not only just capacity building, but also how to empower the learner to become the independent learner, take the ownership of their learning, be the responsible citizen. So, that they not only learn themselves, but also they educate and help others in the community to learning all these things.

So, this is all about the learner centred approach, then action orientation. So, action orientation is primarily that how to engage the learners in action and reflect on their experiences in relations to the intended learning process or the personal development. So, here experience might come from the projects like we are giving them the collaborative projects, action oriented projects, in service learning, internships also.

Nowadays internship during the professional courses or academic courses in the summer break in winter break the students they are. On the voluntarily nowadays they are taking up this internship to expand their knowledge and experience.

So, the then again by organizing different kinds of workshops, facilitating through the different organizing workshops training programs and then you know implementing some kind of campaign, social campaigns, health campaigns. So, that is action learning actually draws the Kolb's learning cycle of you know experiential learning.



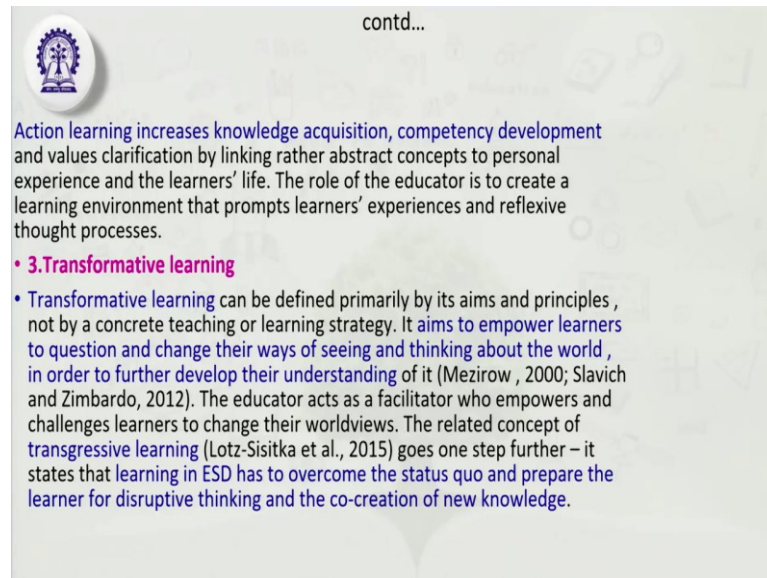
So, experiential learning of Kolb's theory of experiential learning primarily based on the action learning and how we draw the you know draw the assumption, how we try to; how to try how we try to experiment on it, examine it. So, the Kolb learning cycle has you know has shown the four stages; first thing is that having a concrete experience from the reality from the environment, ok.

So, then having the experience then we observe start the observation and reflection. So, we start to observe the exact situation the reality and try to reflect on this. Observation and reflection are the again the learning process, the second process stages followed by the concrete experience. And thereafter formation of abstract concepts for the generalization that then after that after observation and reflection, then we used to formulate different hypotheses, different generalizations, this different concepts maybe this has this is happening due to this and that.


So, we develop different concepts and the try to generalize it. So, abstract concept for generalizations, but after that again then after that we have to examine it. So, after generalization and abstract conceptualization, then we try to apply it to the new situation to verify, to examine whether actually it happens or not whether it actually works or not, it is authentic or not it is helpful or not.

So, this is the whole learning cycle having the concrete experience from the reality, then observing and reflecting on this and assuming something forming the assumptions and abstract concept of generalization, then try to experiment on it on its validity, its reliability and authenticity through application to the new situation. So, this Kolb Kolb's learning cycle experiential learning cycle is very very authentic and very much active and very much relevant in transformative pedagogy.

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Action learning increases knowledge acquisition, competency development and values clarification by linking rather abstract concepts to personal experience and the learners' life. The role of the educator is to create a learning environment that prompts learners' experiences and reflexive thought processes.

- **3. Transformative learning**
- Transformative learning can be defined primarily by its aims and principles, not by a concrete teaching or learning strategy. It aims to empower learners to question and change their ways of seeing and thinking about the world, in order to further develop their understanding of it (Mezirow, 2000; Slavich and Zimbardo, 2012). The educator acts as a facilitator who empowers and challenges learners to change their worldviews. The related concept of transgressive learning (Lotz-Sisitka et al., 2015) goes one step further – it states that learning in ESD has to overcome the status quo and prepare the learner for disruptive thinking and the co-creation of new knowledge.

So, here action learning increases the knowledge acquisition, competency development. So, when we say that talk about children's you know play way method play way method that is what the when the children they play themselves play with the different objects and toys etcetera and with their peers they learn so many new thing so many. So, it is a kind of expect the more we are engaged in actually doing the things learning by doing; say learning by doing.

So, here the thing is that in higher education; that means, we are experiencing the whole situation the reality in practical that is happening outside the school also not only within the school outside the school. So, action learning increases the knowledge acquisition, competency development, values clarification by linking rather than the abstract concept not just the theoretical concept or the abstract concept to the personal experience, but also it can be related to the learners own life and beyond life; beyond these own life, but; that means, to relate to the society, the social life, the community life.

So, here the role of the educator is to create the learning environment that prompts learners experience and reflective reflexive thought process. So, here how to promote? So, that is why nowadays you know new pedagogies like the flipped method, flipped pedagogy, ok. In higher education the flip pedagogy; that means, the students will go through the learning videos beforehand in the at home.

And, but in the classroom the actual real discussion brainstorming question answer session then doubt clearance, activities all these things will happen in the within the classroom to expand the knowledge to be to develop this kind of reflective thinking, active learning all kinds of things. So, though it is not more kind of you know bookish learn bookish learning or the knowledge. So, action learning it increases. So, when we are learning by doing by experiencing the whole thing with trying to solve the problems, formulate different strategies, hypothesis testing, experimentation.

So, not only it helps us in enabling expanding our knowledge, but also it enhances our competencies. So, these kind of, so therefore, how to incorporate these sustainability competencies? Through ESD this is the way to engage the; to engage the learners in various different types of social projects, rural projects, village projects, all kinds of action oriented projects.

So, we have to; that means, then either they will explore the problems from the neighborhood and work on it or maybe sometimes the teacher can also assign to them. Or, make them the freedom to give them the freedom to go and observe and find out what are the resources available what are the problems they are facing and how they are how to solve resolve that problems.

Then next comes transformative learning. So, transformative learning can be defined primarily by its aims and principle it not just concrete teaching or learning strategy, but it aims to empower the learners. So, empowering the learners through you know through; that means, to question and change their ways of sees seeing and thinking about the world. So, empowering, enabling the learners can be possible while giving them the opportunity to engage in the different learning situations.

So, empowering the learners means, the learner can ask various questions, different questions and he knows all kinds of justification for you know cause and effect relationship for environmental outcomes the you know, the resources and how the resource mobilizations whether are being utilized properly or done or not or what are the flaws what are the setbacks and how to resolve it how to?

So, all kinds of analysis they can do it by asking questions. And questions and change their ways of seeing and thinking about the world it is not just from their individual

perspective, but from social perspective from economic perspective, environmental perspective, cultural perspective.

So, multi stakeholders perspective. So, they can better understand the whole scenario situations and who are the actors and the players in that context that situation and what are their roles their perspective. So, they can develop a kind of wide framework mindset framework, mental framework to you know to think from different perspective, different angles, different viewpoints.

So, and there thereafter to enable them not only to understand the whole situation, but to kind to you know to find out to; find out the possible solutions; solutions for the problems and solutions for the problems and the we can say which can satisfy which can empower which can enable the all the stakeholders all the stakeholders. Like in the community related activities and the problems and the issues multiple stakeholders.

And in that though house wife women category women's are the stakeholders, the rural men are stakeholders, youths are the stakeholders you know other kinds of senior citizens are stakeholders health workers are stakeholders. So, from different perspective, how to resolve this problems and by taking into account the others different perspective?

And not just the individuals perspective, but also sustainability aspect perspective like; the sustainability perspective like environmentally or eco friendly eco environmental or eco system implications, socio economic implications, sustainability implications from all perspective. So, Mezirow actually has started this transformative learning theory Mezirow and his associates.

So, this is the primary thing is to facilitate it is that educator is just a facilitator who can empower who can empower, who empowers and challenge the learners to change their world views.

That means, capacity building not just by training and education, but empowering the; empowering the learner to become the independent learner, independent thinker and active citizen by empowering them, guiding them, facilitating them, challenging the learners, giving them the difficult things, challenging tasks. So, that he can not only enhance his own capacities competences and abilities, but also he can also change the world views his perspective on the world the global world.

So, and it goes beyond one step beyond like step further in the sense that learning in ESD has to overcome the status quo and prepare the learner to for disruptive thinking and cope creation of the new knowledge. Here so ESD when we talk about ESD learning is that the learner should be; you know learners should be ask should be given the challenges like he should not be you know very complacent, he should not be very satisfied complacent what is going on it is ok, it is ok with me. So, he should not be satisfied with the status quo what is status quo or the existing practices.

But to identify the flaws the critical evaluating it that is called the disruptive thinking to prepare the learner for the disruptive thinking and co creation of the new knowledge, unless and until he is you know he is disturbed and he is not satisfied with the status quo practices or the existing practices and it creates a kind of disturbance in his mind or you know dissonance in his mind.

So, disruptive thinking means he is not happy, he is not satisfied with the and with the this kind of disruptive thinking then thereafter; that means, critical thinking analysis then thereafter co creation of the new knowledge. Then in order to solve these problems make it a futuristic tool or implications or applications etcetera, how to co create the knowledge co creation of the new knowledge?

So, that is the transformative learnings motto objectives that not only critically evaluate or be critically evaluate that. So, first of all that first of all the students should not be very much the learner should be challenged at every step whatever he is doing; he is doing he is seeing and looking around he is sensing, he is perceiving everything every time he should be challenged in the sense that to expand his world view.

So, that he should that. So, that he can put forward these ESDs policies and principles to overcome the status quo; status quo that is the existing practices. But to prepare the learner for disruptive thinking, for the divergent thinking for more critical thinking and then to come to the conclusion or the come to the solution, so which will be sustainable and co create the new knowledge.

So, in this way the construction, reconstruction of the new knowledge. So, here the learner sometimes they have to unlearn certain things unsustainable practices, unsustainable habits they have to unlearn it and they have to they have to be not just complacent they have they cannot afford to be complacent with the happy with being

happy with the status quo etcetera, they have to critically evaluate every situation scenario, activity, process everything and prepare.

And so being critical thinker disruptive thinker, divergent thinker and reflective thinker they have to engage in different kind of analysis and then come coming to the solution and at the time at the same time to co creation of the new knowledge; co creation of the new knowledge. So, I am just stopping it here right now in next class we will continue with this.

Thank you very much.