

## **Sustainable Happiness**

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**Lecture - 33**

### **Sustainable Learning and Education**

Hello viewers, welcome back to this NPTEL course on Sustainable Wellbeing, Sustainable Happiness. Now, in the last class we have just started about sustainable learning and learning and pedagogy, learning and content, learning and education. Now, we will continue with that what should be the sustainable learning curriculum content and context. So, for a sustainable learning and education as the know as it is the framework it is a philosophy of learning and teaching. based on some foundational principles. So, that is what are these foundational principles because sustainable learning education is not just a framework of education for sustainability, but rather it is a new paradigm of ah of a teaching learning framework having different ideas.

So, this sustainable learning framework is ah the principle basic intention on basic purpose and the goal ah is to create a and proliferate the sustainable curricula and method of teaching learning that means, primarily advocating for the sustainable learning and pedagogy. So, which can inculcate the sustainable practices, sustainable you know thinking styles etcetera. So, these are these are actually designed to instill people the skills and disposition to thrive in complicated and challenging circumstances. So, that means, to get ready to prepare the learners to with the challenging the that means, the emerging challenges related to climate change and other kinds of challenges economical social you know natural disasters etcetera that is to instill to nurture to to develop those kind of skills.

And the disposition that is the traits traits to deal with that to deal with these challenges that is to be resilient to be competent etcetera. And to and in this process how they can significantly contribute contribute towards the development of the global development that is the for the for making the planet a sustainable place to live in. So, that is that is the researchers they have primarily proposed on the systems ecological systems and ecological thinking. As we know that there are certain sustainability competencies. So, these sustainability competencies will be embedded in the teaching learning process and the curriculum.

And so, it will it will you can say it will encourage it will inculcate a systems thinking that is the holistic thinking how the system functions holistic thinking systems thinking Ecological thinking, ecological awareness has come and deep thinking about the sustainable practices and you know and the what is the essential role of self-sufficiency both as a means and as well as an end to sustainable learning and education. So, sustainable learning and education framework that will develop that will motivate the learners the skills and competencies as well as the certain dispositions and the traits to be resilient to face all those challenges and to be competent and to be skilled and competent to think about the whole system and how to be sustainable in our not only in our present day to day livings and practices, but also how can we restore our sustainable future. So, here your that means, so here the sustainability this sustainable learning and education framework says that it appreciates that we live in a community, we live in the neighborhood. All of us we must be more engaged with with this community practices. So, so it is a framework not just for the individual learner or the student or the particular school or institution, but is it is for the community engagement it is the holistic thinking holistic learning.

So, the subjects of sustainable learning initiatives primarily that means, to make the make the students make the children the active agent of. agent of bringing that sustainable changes in the society to become active agents and and to how they can also establish the education as an enterprise. So, the this kind of sustainable learning and education that means, it affects it has a positive impact in taking forward that they taking forward the children that is beyond the educational setting. That means, the children can think of the practical situation, the global situation beyond their immediate classroom or the educational setup. So, it is that means, to benefit that means, in this practice in this framework all the learners all the different learners diverse learners they can benefit they can be benefited fully, fully from this type of learning framework and which can be implemented which can be applied which can be useful for all setup across the across the context.

So, beyond the classroom setting. So, sustainable curriculum, so sustainable curriculum also it involves the learners immediately that means, in what and how they can learn that means, to ask the very many types of critical questions to themselves. Why I am learning, how I am learning, how it is going to bring changes in my behavior, in my in my community, in my in my workplace etcetera, how that is to make them more critical To be the self-critic to ask many questions to themselves that is what and how they learn, why and how this is a this is very much imperative for the future. So, and to develop the awareness about the learning processes that is learning is the process as a developmental process and every step they must ask the questions to give the self-feedback to to be

self-reflective. So, to develop that awareness of learning as a process and equip every learners with the different kinds of tools and techniques and strategies.

for their for the need for their self need analysis as well as ask the various questions about the utility of this learning process in the various situation. what can be the implications or how they can apply these things in different life context situations to you know to resolve the issues and that get the solution for the problems. So, the following questions may be asked by the learners individual learners as you can say that what do I need to know or be able to do to succeed in a given circumstances that whatever I am learning this SLE framework will teach. Every learner that means, they need they will that means, they will more curious more inquisitive and they will be more critical and reflective in asking them all the questions these questions at every step. Why I am learning? What do I what will I know out of it? What will I learn out of it? How I can utilize it? given situation.

So, what do I need to know or be able to do succeed in a given circumstances, if I face this kind of challenges how I am going to resolve this in these situations. So, what does this unique situation or the problem require of me and my team. If they are working in a collaborative team, then how the that means, what are the capacities that the team develops. So, with the unique capacities of the team, now the learners will ask themselves how my team will be. beneficial for dealing with all kinds of the challenges.

So, what is the unique situation of the problem that require me or my team to work on to do certain things. So, how well equipped am I to deal with this problem. So, there are various challenge numerous challenges and problems in that that context. The learner will ask about his own skills and competencies and how he or she is going to deal with this problem as well as to empower the team to collaborate with the team to deal with this kind of situations in different occasions. So, that is why for a very much required a component is sustainable curriculum that is sustainable curriculum also advocates to be critic the critic the effectiveness of this learning.

If I am learning what is its usability, what is its utility, what is its generalizability, what is what are its applications, implications all these. And how to and to determine the new strategies and what could be the possible new strategies which can be more constructive, more positive or more sustainable. So, it helps how this SLE framework, it will be more responsive and organic. Responsive is that it involves engagement, learners engagement, active engagement, their you know their queries, their asking questions to themselves, then you know their analytical thinking, analyzing and verifying the authenticity of the solutions. So, hence it involves the different kinds of interactions and the responses.

It is more responsive and organic. Organic actually it happens in the actual environment, actual context. As this framework is more responsive, it is more interactive, it is more engaging as well as it is organic because it actually happens in the real life context. So, this it also embodies the principles and the requirements of sustainability all the sustainability competencies principles to deal with all the triple bottom line ah things all these are embedded in this ah framework. And the two main aspects ah of this education sustainability is that first is that education that last.

Whatever we are learning it will be for it will it will it should be for futuristic it should be lifelong learning. So, whatever theories, practices, systems or whatever it is available in our curriculum course etcetera it will be very useful for future as well. So, it is it should be current it should be up to date current and viable in the world that is for dealing with the different kinds of challenges and it also influence the positive challenges changes. So, as a result of these teaching learning practices there should be positive changes in the behavior, in the practice and in the mindset of all the stakeholders. So, the next second is second principle the sustainability in learning education is that learning that is continuous enduring and proactive.

So, learning means it is a it is a it is a sustainable learning or SLE framework always advocates for the positive learning, futuristic learning, continuous learning and you know it must have the enduring effect sustainable effect. So, learning that is continuous ongoing enduring sustainable and proactive that is sustainable Even actual that means, it is proactive means that it empowers the learners to think beforehand to think before beforehand think before the actual event. So, to be proactive to be that means, to be well prepared with the pre you know pre skills or pre required pre required you know knowledge skills and competencies to deal with any adversities. So, such kind of learning primarily focuses on not just learning for the sake of learning or for getting a degree etcetera, but more on the learning how to learn, how how can I use make use of this learning, optimizing the learning for from the experiences That means, some sometimes what happen that is not all about it is not at not all about the theoretical knowledge, but to learn from the experience it to learn from the teamwork collaboration to learn from the dealing with the problem based situations. So, and accordingly from our experience and from our experience.

you know from our experience how to optimize this learning from the experience for the future use. So, as you can see ah. So, learning precedes a learning that means, the learning should it should precede the towards sustainability and sustainability. So, take forward innovations. So, learning is continuous and it instigates, it stimulates futuristic thinking, it promotes sustainability, it also promotes the creative ideas and innovations.

So, learning and innovation are interlinked in the framework of sustainability. Sustainability means always we are inquisitive in thinking and trying to thinking and trying to solve the problems, various kinds of problems social, economic and environmental problems. So, in this process system we are always thinking of some new ideas, some innovative ideas, some new new new you can technology. So, always they are thinking of something new to resolve the challenges. So, similarly automatically.

So, this this this promotes this prompts the learner to be to think actively, to think creatively, to think innovatively. So, here the goal of education is also that that the mastery of not just the mastery of the knowledge, but also mastery of the self through the knowledge. So, as we proceed as we move on in learning and learning from the experiences, learning learning for sustainability, learning for mitigating the challenges, learning for the sustainable future etcetera. So, we are exploring, we are reflecting on our self, we are also learning. exploring our self and we also update our self with new skills competencies from our experiences as well as the from the futuristic ah ideas that is to be innovative, to be proactive, to be creative ah for thinking for the futures.

So, self-mastery learning is another concept, self-mastery learning is alternate with the it is this framework empowers the learners to be to be a self-learner, to be a self-motivated learner, to be a proactive learner which involves a different kinds of skills of inquiry, skills of critical thinking, discovery, problem solving, reasoning, judgment, judgment. imagination, collaboration. So, it involves all the higher order thinking skills not just to learn and apply in the particular context, but to think beyond the present situation to be inquisitive, to be critical, to be to be self reflective. So, to that is why he uses the learner uses various higher cognitive skills, higher order thinking skills like metacognitive skills, problem solving skills, you know creativity thinking skills. So, all the higher order thinking practices reflections and etcetera.

So, that makes the learner or that helps the learner in developing the new dispositions or the new traits personality traits or new character strengths also to character strengths which will be more sustainable that it is in the practice itself they will be learning how to develop the new skills and competencies which can help them in sustainable making sustainable future. So, this SLE program actually employing the new paradigm that is learning for the good. So, this framework is not just about individual learning, self learning etcetera, it is about the individual learning and individual development, it is about the organizational development, it is about the community development, it is about bringing the social societal changes needed to protect the planet earth, it is about ecological to protect our ecology, about to protect our communities, it is about it is about the individual as well as the community things. So, that is to promote the intention and the capability to find the find the new ways better ways to cultivate the human potential

that means, how to nurture the human resource, how to groom, how to cultivate the human potential rather than only depending on the natural resources. So, here human resource become a very important power.

resource, potential resource because through human resource we can enhance, we can increase or we can expand our sustainability framework. Because the natural resources are limited and we should not deplete it, we should not over we should not overuse it or exploit it. human potential is the you know is immense how to stretch it out, how to maximally utilize it. So, how to cultivate the human potential and how to maximize this potential make it more creative and authentic for the sustainability. So, that is why it is to equip the citizens with all the skills, knowledge, tools and technologies.

and different kinds of tools and techniques are available to resolve the problems with technology we technology is the tool, but we have to use it judiciously. So, that technology how to use identify and use the right kind of tool to resolve the problems to resolve the issues and challenges and to pursue for the opportunities also. So, facing challenges challenges are always there along with the opportunities challenges right now instantly we think that it is a challenge, but as we move on in exploring the of that challenge and how to resolve it planning strategies for how to resolve it that itself gives us a immense opportunity to explore further. So, so that is why that is the whole instructional program should be based on that ah the questions like to answer what kind of learning enable the sustainable innovation and growth and how can the best how can we best create the conditions for such learning in different context around the globe. Because as the context varies the challenges also vary, as the context varies the you know the situational factors also varies.

So, we have to groom we have to nurture this kind of skills skills competencies mindset among our stakeholders among our learners. So, that they can quickly adapt themselves in the new situation, they can deal with the challenges, they can be resilient to deal with it and they can come back. come back with more success and experience success and knowledge out of their experience. So, this SLE theme sustainable learning education framework actually today it has to be made very relevant, instructive, authentic and futuristic. So, it builds on the notion of sustainability and it talks about the sustainability learning for edge learning, education, innovation and you know different kinds of pedagogy that is education that is sustainable education advocates for like education and pedagogy advocates for for an innovative pedagogical practices that in the that is learning from the experience, learning from the collaboration, learning from the from the teamwork, from the from the innovation, from the and there are different pedagogies on both online and offline and hybrid mode also how that means, different with the varying conditions and with the communities of learning, communities of learners etcetera, how

can we expand our horizon of learning and knowledge acquisition from our experiences.

So, it is not limited to only classroom teaching or the theoretical content or the literature available, but we have to expand it to the various you know various platforms, various platforms both by taking the help of technology as well as by utilizing. Therefore, nowadays more emphasis is being given to more interdisciplinary studies, interdisciplinary and transdisciplinary studies and you know application of this various principles across the section across the discipline like environmental science, engineering, economics, management, philosophy, literature, creative arts etcetera all these across the discipline the theme the basic theme is that how can we be sustainable in our future endeavor in our present activities as well as in future endeavors. So, across the discipline. The same principle can be applied across the discipline. So, now, it is more of multidisciplinary transdisciplinary ah framework.

So, where we have to achieve sustainability through different modes of different modes of learning or different different types of sustainable pedagogy and sustainable curriculum. So, this is sustainable learning and education a curriculum from the curriculum for the future some of the principle etcetera has been it has been elaborated you can go through it for your reference. And now sustainable curriculum also it involves a learners that is learners intimately in what and how they learn they must be they must be self-critic in analyzing they must be asking the questions like why I am learning how I am learning what are my strengths and weaknesses. where I am lagging, how can the same thing can be done can be done can be solved in a different ways that is to explore the new ways. So, why and how this is imperative for the future.

So, this it also develops the awareness about the learning process equip the learners with the tools and techniques of the need analysis to ask that means, they have to analyze self analysis, self reflection, self analysis and self analysis actually self need analysis and self reflection actually prompts to ask question many questions. The learner himself will ask many questions like what do I need to know and to be able to do and succeed in a given circumstances or what does this unique situation or problem require me or my team whatever that is we have already discussed, how well equipped I am to deal with the problems. So, that means, it builds our self-efficacy, it builds the competence, it builds the ability technical knowledge and ah and capacities of the learners that is to deal with the problem. So, now, the learner himself will think of ah now I am ready whether I am ready and confident to deal with this kind of thing. So, it is to equip them to critique the effectiveness of the learning they are learning not just for the sake of degrees or the grades etcetera.

But, they are learning it for developing certain skills, certain positive mindset, certain competencies which will be very very useful not just in the work space, but in the global context which will be and the new strategies they would learn to be more constructive and positive in future. Now, another important concept is that education for sustainable development which is SDG 4.7. Now, SDG 4 sustainable development goal 4 is primarily dealing with the quality education, inclusive education and equal opportunity to everybody. And it has many targets out of which SDG 4 is primarily exclusively of quality education and inclusive education out of which out of its many targets SDG 4.

7 actually deals with this education for sustainable development and global citizenship. Because, UNESCO has already declared that ESD that is education for sustainable development ESD has been the most important most important significant tool to bring changes to to create an awareness to bring changes positive changes among the stakeholders, among the citizens, among all the learners and the and the community to bring that positive changes and help them to achieve the all the all other SDGs. So, all the 17 SDGs are SDGs are interrelated, but SDG, but how to ensure that then we have there are so many so many millions and billions of people in across the different countries. So, how can we ensure that how in the case we have achieved this all 17 goals, 17 goals education is the most important tool. Yes, technology is there technology is just a tool, but education that is ESD.

It is the most important tool, most important skill and competence, the most important target that is which gives the learners across the ages, across the section, across the across the community and the country. So, knowledge, skills and the values and it is it is gives the agency to address all the interconnected global challenges that starting from the climate change to loss of biodiversity to on sustainable consumption practices, inequality etcetera. So, UNESCO has already declared that ESD is very very prominent, very important hence to emphasize more on ESD, how ESD can be embedded in the curriculum and it has now UNESCO also researchers who are working on the on this sustainability and ESD. They are also expanding its curriculum framework, its pedagogy you know by adding the new concepts like social emotional learning, what should be the curriculum, what should be the content, what should be the pedagogy. So, extensive research is being done on education for sustainable development because it is the most important probably the one to only tool to expand the awareness among the stakeholders and to enable them enable them and empower the stakeholders to achieve to help them in achieving SDGs for every country for every state and community.

So, it empowers the learners to make an informed choice, informed decision. It actually educates the learners every learner to think actively, to think reflectively and to be well informed about and to think reflectively on what they are doing, why they are doing,



what is sustainable, what is unsustainable practices. So, before taking any decision, so they become well informed. So, it helps them to make informed decision, whatever they are doing, they are performing and then the way they are responding either individually or collectively. So, they know then they must be well aware of its consequences, they must be well aware of its impact on the society.

So, ESD is again is a lifelong learning processes and primarily it is integral part of quality education, sustainable education, futuristic education and prime and it again it is the process is a long it is a continuous process and now UNESCO is also developing adding many more components like curriculum framework, green school framework, teacher training from framework and you know some kind of intervention programs. So, it is a lifelong process and UNESCO is trying to enrich this ESD component by adding the various cognitive components, socio-emotional learning component, environmental component, behavioral dimensions. So, that is primarily to focus on enhancing the cognitive, socio-emotional, behavioral dimension of learning. So, that to empower each and every learner to be a conscious citizen, to be a global citizen, to be a alert citizen, to be a responsible citizen. So, encompassing the learning content outcome pedagogy and learning about the environment itself to pass on to a carry on to carry forward does all this all this kind of authentic socio and that ecological environmental economical issues in this process.

So, the sustainable curriculum for education is the ESD curriculum ESD curriculum it embeds all the types of cognitive components that is to bring the change to bring change in the mindset of the people socio emotional environment how they can bring through they can feel they can feel they can reflect they can be empathetic towards the nature towards others towards the So, creating the socio emotional impact or creating that environment learning environment to think twice to to be reflective and behavioral practices that means, in reflecting in manifesting that means, in that means, in manifesting in terms of the right kind of sustainable behaviors like sustainable consumption, sustainable lifestyle, sustainable living practices. and conservation of resources all kinds of things. So, it encompasses the learning content, outcomes, pedagogy all kinds of the things. So, it primarily focuses on cognitive learning that is cognitive learning framework in SLE framework, socio emotional learning environment. That is all the stakeholders they interact with each with themselves with each other, think twice, reflect on it and develop all kinds of the emotional skills and competencies to feel the impact.

how they have been how they have been torturing the planet earth, how they have been very that means, they have been using using it mindlessly or that means, in a very negative way how it has affected the planet earth and then bring reform or change

modification in their behavior. So, and it must take place at a mass in the mass level not just individual level, but in the mass level across section across the society. So, that is the UNESCO work on ESD primarily focuses on these five main areas and UNESCO has been consistently continuously working on on this ESD framework and folding the different curriculum ah curriculum pedagogy and all kinds of learning out expected learning outcome of ah sustainable education. So, continuously ESD has been UNESCO has been working on ESD.

Now, this ESD focuses on five main areas. So, what are these are advancing the policy because from these our teaching learning practices training itself how to advance the policy framework educational policy framework administrative policy framework transforming the learning environment. So, learning environment that is not just for the classroom teaching only for the interaction or for gaining the knowledge, but it should be a it should be experienced. That means, it should be a learning lab actually it is a laboratory it is a learning laboratory because our intention is to to bring transformation that is complete change 300 degree 60 degree change. So, transforming the learning environment from the classroom situation to the natural environment context as a learning lab ok. So, transforming the learning environment building the capacities of the educators the yes unless and until the educators or teachers are trained properly trained how can they transact the things.

So, building capacities of the educators and the teachers that is significant. Empowering and mobilizing the youth because youth is a major human resource potential and they have to be leveraged, they have to be skilled, they have to be made competent. So, empowering the and mobilizing the youth, youth as a major stakeholder to mobilize the whole process in a positive way. Accelerating the local level action that is at the rural level at the panchayat level at the very small village level also how to accelerate the action. So, now UNESCO supports the countries to develop and expand the educational activities that focus on sustainability.

Issues like that they are working on the issues like sustainability issues like they are starting from climate change to biodiversity, disaster risk reduction, water, the ocean life and the sustainable organization, sustainable lifestyle, sustainable consumption production, sustainable agriculture all kinds of things. So, ESD is the tool to achieve all all these kind of things. So, UNESCO also leads and leads and advocates globally on ESD and provides the guidance and standard. Another component is also added here that is every citizen of this planet earth should be a and must be a global citizen. It is not about me, my state, my community, your country, this country that can now it is every every citizen must be a global citizen ok.

ESD also advocates for that. So, it is a sort. So, ESG actually advocates for preparing the citizens as the global citizens. So, in order to again ESG data is being collected monitoring the progress of SDG indicators and how this and how global citizenship education is how to how to how to introduce it in the curriculum how to prepare every citizen. how to bring it to the mainstream national education policy curricula of teacher education. So, that every citizen every stakeholder will be conscious of you know and think of himself grooming himself as a global citizen. And these are all the sustainable 17 sustainable SDGs you know it all of you know it.

So, now, UNESCO mobilizes education to address the climate change that is through ESD programs, through climate change education program, through environmental education program, ESD programs by you know with the development of knowledge, skills, values and attitudes and all kinds of workshops, you know faculty development programs, seminars, conferences, online workshops, web series, these are coming through. So, UNESCO is making effort to education to make it more central visible part of the international response in a response towards the climate change. It is about every citizen's concern about the climate change. So, and now so, now, this in 2020 it has actually started with the started collaborating ah you know in a secretary general summit ah you know they have started the collaboration with many countries or they have started to bring the transformative to making the transformation transforming the education system.

and making the system more green. So, greening education partnership has been launched by 2022 and many countries have been a partner to it. And so, and their primary focus is how to bring transformation education system. So, they have categorized the this transforming education they have categorized into four So, four categories like greening the schools first of all one is one area key area greening the school, greening the curricula, greening the teacher training process and greening the education system, systems capacity and communities. In this way they are you know the UNESCO is primarily now focusing on the transforming education towards the green to making it more global green and sustainable. So, UNESCO has also developed ESD 2030 toolbox various kinds of skill development and tools techniques are available there and all the stakeholders they can they can go through it.

And it is primarily free and to develop the activities in these five priority areas that we have discussed in the action areas. And the six areas of implementations are also there, there is six areas of implementation that is creativity, innovation, sustainability are there. And, how to use the successful, how to successfully implement these new ideas and useful ideas, several possibilities can be there, how useful approaches to obtain the sustainability and novel and useful ideas to seek the sustainability, to think creatively for

sustainability and when sustainably use the sustainable ideas for creative innovations. So, sustainability scholars primarily they propose the environmental and economic solutions because environment, nature and ecology as well as economy these are also important factors. So, how to come up with the new ideas, new strategies for the environmental sustainability for enhancing the environmental sustainability and economic solutions being the economic solutions to enhance the business strategy to make it more sustainable.

So, and to deal with the many sustainability problems that we currently face. Because, in the last class we have already discussed that it is very difficult to meet both the both the ends like to be sustainable as well as the cost effective economical and to and to to be viable and profitable viable sustainable and profitable. It is very difficult to meet the standards across the paradigm. So, that is a innovative scholars they are actually now paying more attention to the process of selecting implementing the most creative ideas and how these ideas can be converted into the sustainable practices, sustainable business, sustainable technology and innovation. So, this is the framework as you can see now the present vision of the current what is the current state of affairs then sustainability transition how to bring that sustainability change.

So, for that we need sustainable competency, education for sustainability and enabling condition the environment context is equally important and how to achieve the goals goals or reason and mission of that is to make a sustainable state or to make a sustainable community or sustainable country. So, all this is this kind of frameworks are being developed by the researchers. Now, we will continue this topic in the next class as well. Now, I am just closing it right now. Thank you very much.