

Psychology of Learning

Dr. Atasi Mohanty

Humanities and Social Sciences

IIT Kharagpur

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Learning and Pedagogy

Hello viewers, welcome back to this NPTEL course on Psychology of Learning. So, today we will start a new lesson that is learning and pedagogy. How these two concepts learning and pedagogy are interrelated and how will we get maximum benefits in teaching learning process: all these things we will discuss in this topic. So, as you know pedagogy. So, pedagogy is you know science and art of teaching ok. And in case of adults we say it as androgogy, but pedagogy is that it can be defined as you know as a way of teaching, way of teaching of both the theoretical subjects practical subjects.

So, it is a method of it is art of it is a way of teaching. So, actually it has come from the Greek word that is called the from the pedagogue, pedagogue would means the art of teaching the children. So, that is why primarily we are using it pedagogy means for the school children for the up to the secondary level school children. So, and it helps the teachers to understand how learning can be facilitated.

So, here pedagogy takes into account the children's developmental stages, their different characteristics, their level of motivation and how to engage them in different activities. So, it helps the children helps the teacher to understand how they learn, how to engage them in a effective learning process, what are how to take care of their needs socio emotional needs and how to cater to their individual needs all these things. So, it is it is more it plays a vital role important role in designing the effective learning approaches. Now, you know you must be knowing that for taking every for taking the classes for every class we design a lesson plan. So, in designing that lesson plan this pedagogy actually takes a very significant role plays a very significant role in defining that classroom curriculum, defining that lesson plan design designing that lesson plan because it tells how to deliver how to deliver a topic.

So, that is the pedagogy the science the way we teach the way teaching learning process takes place the way we engage the students all these. So, pedagogy plays are it consists of a very important part significant part of our teaching learning process practices as well as the classroom lesson plan. So, now, it has a immense benefits as you know it definitely it improves the quality of teaching and learning it not just helps the learners, but also it facilitates the helps the teacher to improve his or her learning ability skills etcetera. And it also assist the students both the students and teachers in gaining an in depth understanding of the fundamental content of the subject like science learning materials and the or social science or the you know any kind of other technical learning material like the environmental science or the social science or geography or whatever may be the things. So, effective teaching actually helps the teacher in understanding their students and understanding their strengths and weaknesses understanding their potentialities understanding their needs different kinds of needs like the academic needs social needs emotional needs.

So, all these kinds. So, it helps the teacher primarily to understand the requirements the needs of their children and moreover to individualize the instruction individualize the instruction process teaching process to cater to their individual needs. So, that is why. So, in this process of teaching learning process there are lot of classroom exercises discussions counseling guidance mentoring coaching. So, many activities takes place and these things actually it is strengthens the teachers student relationship.

So, it is another way of enhancing the bonds bonding of the teacher and student relationship. So, again similarly it is also a method of teaching that is that is both as a academic subject and as a theoretical concept as well as we also use it for the lab lab components of the practical aspects. So, it enables the teachers to influence the students learning to draw their attention to capture their attention and how to strategically focus their attention towards the learning processes how to engage them in the teaching learning process. So, that they learn by doing they learn by different you know exercises by participating in by participating in the group activity team activity. So, that there are different ways and means of engaging the students and by being engaged by being engaged the students also lots learns lots many things lot many things than only than only by sitting in the classroom and passively listening to the things.

So, now this passive learning like the passive learning and the teacher centric classrooms are now outdated. Now, we are more focusing on the students learning students being the active agent in the teaching learning process and how the teacher and the educational administration the environment all the things other stakeholders other resources how the management how the school management education management how they you know integrate how the customize the whole thing towards the learners needs. So, that is why so, it is primary here the in this context the primary focus is the target group. Our main customer target audience means basic you know most important customer is our students or learners and everything revolves around them. So, how not only to build their capacity to draw their attention to build their character to engage them in different kinds of learning activities etcetera, but also help them in developing their personality for bringing that holistic development for harmonious development all round development. So, that is a it helps the students to enhance the real capacity their capacity to recollect the ideas to think critically to think innovatively to be creative and be creative and how to transfer this learning experiences to the new situation in the social life in the practical life etcetera.

So, that is at the primary focus of good pedagogy that is effective pedagogy pedagogy and innovative pedagogy is to elicit the responses that demonstrate that understanding. So, we have to design starting from the designing relation to curriculum to classroom exercises classroom activities and innovative pedagogy using the technology and you know even assessment and evaluation learning objectives everything revolves around the learners performance outcomes. So, learner learners performance outcome improves improvisation of or harmonious development of the learner's potentials. So, it helps the learners to facilitate and become more agile in their approach. So, in the process it is it is like just like a socialization process like educational is socialization you can say because it is the it is the that means, it consists of a very many very long hours of or very long time of their life span life span starting from the early childhood to the still adulthood and after that you know continuing education.

So, it as because it takes into account a major part of their life. So, in the it is the process of you know you can say socializing socialization on socialization continuous learning and you

know experiential learning and again you know self understanding developing the self concept self efficacy and not just understanding the topic, but how they can empower themselves how they can become more agile how they can become more innovative how they can become more independent self sustaining self learner self dependent or self reliant learner how. So, how they can take up their the ownership of their own learning processes. So, it is the it is not just only learning them engaging them teaching them or making them understand certain things, but also empowering them to become an independent learner. To become an independent learner is to start thinking innovatively independently and creatively. So, here engagement in learning also slowly and steadily increases as the students are students are being delegated new responsibilities and out and the way we also use innovative pedagogy.

So, in this process the student's engagement as the students' learner's engagement increases and with the resources with the innovative pedagogy as slowly and steadily the learners become very self you know self empowered or you can say independent and self reliant and independent learners or you can kind of self motivated learner. So, it also increase the access to more meta cognitive. So, here is now another aspects of you know when we are teaching the we are designing the curriculum we are delivering lecture. So, our primary intention basic instruction objective is to not just to the not just to the cater to the individual needs in terms of only learning needs academic needs, but for the for their cognitive development for cognitive development their affective development emotional development and their behavioral development. So, here human learning also takes place you know taking into account all the three domains of learning because with the intellectual development emotional development is also required and both the combination and the combination of this intellectual development cognitive development along with the emotional good healthy emotional development emotional intelligence etcetera it will be manifested through our behavior.

So, ultimately the goal of education is to make our citizens responsible citizens global citizens and citizens with having their responsibility sense of responsibility. So, that they can serve the communities serve the future serve the peoples and the society. So, ultimately is all round development. So, here the learners learn based when they are actually engaged. So, that is a nowadays team learning group learning are has become very important because it is not just about learning the content is also about socialization it is also about learning new social skills it is also about sharing the experiences and you know discussing something collaborative with each other.

So, cooperative with each other if you think being critical being creative all these things. So, in this process the model that is where the modern day pedagogy it involves interconnection of learning ideas with. So, that that is why we used to assign the task in the group set up in the team learning like we encourage the team learning group learning ok. So, the every member. So, like every members within the group they will interact they will discuss they will critically evaluate they will share their experiences they will analyze everything and come to the consensus.

So, come to the consensus and that result that net result of their of all the group activities discussion etcetera it has become it will be a very effective very effective not just in terms of learning experiences, but in terms of its outcome its usability its implications etcetera. So, now the five pedagogical approaches in teachings are there, but there are also many innovative approaches basic primary approaches are like for example, constructivism approach constructive or based on the constructive approach. I will discuss about it

collaborative approach inquiry based approach integrative approach and reflective approach these are the major five major pedagogical approaches, but there are also other pedagogical approaches are also there depending on the researchers' innovations and ideas.

So, constructive constructivism I think we have already discussed about you know cognitivism constructivism behavioristic approach etcetera. So, constructive approach actually it has emerged from the constructivist theory where the learner is learner is considered as active agent active participant and the whole learning process revolves around the learners that is all their preparations their readiness their developmental stage their willingness their motivation their attention everything is very important in the construction.

So, this learner is believed to be actively involved in the process and making the meaning out meaning making the meaning out of this teaching learning process and in this meaning making process in this experiences sharing the experiences or experiential learning process the learner himself creates the knowledge. So, that is a knowledge construction from the every learner is not just more you know prescribed or its not more in kind of you know given in the or spoonfeed kind of learning we will at will deliver the things, but learner is independent to understand it to interpret it as per his or her understanding and is as per his or her past experiences etcetera. So, every learner is independent to understand it interpret the learning content in his or her own way. So, and, but again he can also unlearn certain things. So, construct he can also relearn and construct his own idea.

So, knowledge construction is the is considered as the most active learning outcome of this constructive approach every learner is an active participant active agent he takes plays an active role and in the process of learning not just the learner understands the knowledge, but he creates constructs his own knowledge. So, so he adds to the knowledge repository. So, that is the knowledge being constructed by every independent learner after their own understanding and by sharing their experiences by using their creative ideas. So, knowledge construction as is the more focus is the more important or vital target or the objective of this constructive approach ok. So, learner is an active participant not passive not passively receiving the information and learners are the makers of the meaning and knowledge.

So, learner can interpret the meaning of this content in his or her own way can unlearn certain thing and can relearn and construct new knowledge. That is the constructive outcome. So, collaborative approach is collaborative learning is a situation in which two or more people that is in the group context in the social context. So, learning together when we talk about the collaborative means more than two people or more than two people they are collaborating it depending on the size of the team when they are collaborating with each other they are learning together they are sharing together they are evaluating together. So, in this process so, collaborative learning actually so, people are engaged people engage in collaborative learning capitalize on one another's resources. Like for example, suppose in the primary in heterogeneous group primarily in heterogeneous group that is the suppose in heterogeneous group people from different backgrounds different group different aptitude etcetera they are working together.

So, every individual is unique having the different learning experiences in the background. So, when they will start discussion they will start discussion they will discuss the whole topic from their perspective from their background. And in this process there will be a you know there will be integration of integration of all approaches all perspectives and there will be a threadbare discussion there will be a critical analysis there all the things evaluating

each other's ideas you know learning from each other evaluating each other's ideas monitoring others monitoring observing another person's work how they are performing asking the questions all kinds of you know discussion analysis critical analysis reflection of monitoring evaluation takes place. So, that is it the in that is the approach of the collaborative approach. So, in the moment they collaborate in a group set up in the team set up not just they exchange their ideas they ask each other they learn from learn mutually from one another one another evaluate each other's ideas and thoughts and things and monitors and observes in this way.

So, learner having maybe that he is having limited knowledge in one topic, but when he collaborates with others he learns many more things. So, the ultimate result ultimate learning outcome is massive. So, here you can say collaborative learning is primarily based on knowledge can be created in the group context by sharing the experiences and by playing different roles that is the asymmetric because they are not similar they are not they are different. So, knowledge is being created in the collaborative context. So, now another is the inquiry based.

Inquiry based approach is that is a form of active learning when you experiment you try to explore you try to discover you try to innovate you try to ask many questions. So, it is a form of active learning. Active learning primarily focused on posing by some questions trying to sort out the causes of some problems trying to solve the problems try to identify you know hidden causes and cause and effect relationship or finding out the flaws in the process it is asking by asking questions and posing the different problems. So, primarily it is related more of you know experimentation research kind of thing survey kind of thing. So, and that this process often facilitate in developing the knowledge for the solutions like for example, when we talk about the socio social researches or socio geographical socio economical ecological researches. So, definitely there are different problems are that, but we have to go into the depth of the or the you know go into the depth or the root cause of that problem the social challenges that we are facing.

For example, nowadays we are facing the challenge of climate change carbon footprint then energy energy that means, how to procure the clean energy all kinds of the challenges that we are facing. So, and we have to go into the depth of the root cause of this and how to mitigate those problems and issues and challenges. So, it is a more kind of you know problem solving approach problem based learning and it is the primarily it is used generally used in the small scale investigation like in small research projects small pilot projects small social projects socio economic projects some kind of you know geographical projects. So, here it is more inquiry based means by asking questions by having an inquiry inquisitive or curiosity in having the inquisitive and curiosity when you know questioning asking the questions. So, in this way to explore that is to explore how to explore.

So, inquiry based instruction is primarily it is a practical aspect of the thinking skills how practically how do we take receive perceive certain things from the practical perspective like for example, we are doing a research we are studying some subject, but how it is going to help us in our real life. So, that that that actually prompts us to ask many questions to ourselves. So, that is called the inquiry based.

Integrative approach is definitely as the name implies is blending different things. So, describing the moment was integrating the lessons like now a days is more of inter disciplinary now a days is more of trans disciplinary. So, it is a combination of different subjects and how

they can be well integrated and put into the curriculum. So, that so, that is so, that the students is there knowledge development ideas they are not just focused only one domain one concept like only not only in science in physics and chemistry, but also by, but also as a holistically that is a holistic development like in the sense that understanding the society as a whole, understanding the planet earth as a whole, understanding the holistic development or the complete society and different roles they are supposed to play in the in their life time. So, it is a holistic all round development and to give that kind of that kind of you can say flavor or that kinds of information that kind of growth that kind of development that kind of outlook or perspectives now the lessons are being integrated. Not just in the schools that we are studying in different subjects like social science, geography, science, environmental science so, many things, but in the higher education like the post secondary also. And now we are getting the opportunity to select and identify different kind varieties of varieties of the subjects and that can help the students in making the connections that is how each and every subject is related and how it influences our life and the society and the ecology.

So, that is an integrative approach. So, primarily it relates to the interdisciplinary, transdisciplinary and disciplinary approaches to learning and pedagogy also. So, now that is why we are also nowadays proposing integrated curriculum. Integrated curriculum in the sense integrated studies because integrated studies are taking the that means, prepare may be taking into consideration both the science, both the philosophy, both the art and culture, both the music and then social science, then economic science, all these things putting together how can we develop a well balanced curriculum which can develop an authentic understanding of the society, of the planet, of the challenges that we are facing now. So, that is a interdisciplinary curriculum it has you know has been proposed by different researchers by different studies which to for enhancing the students engagement and learning. So, that the learner our focus is the harmonious development, all round development of the learner.

So, how come the how can the learner know about the all aspects of the life, all aspects of the planet earth, all aspects of the society or humanity? So, that is why giving them the basic information about different disciplines, different interdisciplinary things that is the interdisciplinary curricula for better student engagement. So, it not just improves the students understanding of both the science and arts and language and arts etcetera things, but also to prepare them to prepare them to develop a holistic perspective to understand the any every issues any and every issues and challenges that we are facing now a days. They can better interpret it, they can better understand it.

So, and then the reflective approach is reflective approach every teacher can practice it, every student can practice it, the teacher can think over their teaching practices, analyze it, how it can be improvised, how that means, by observing the classes, by observing the students performances, by observing their discussions etcetera he can reflect on his or her own practices own pedagogical practices.

And every time he reflects on his own teaching things he can find out, he can analyze where can I improve it, how can I take care of these children these kinds of needs, how to engage them. So, every time we reflect on we definitely we are going to identify some or other lapses in the classrooms or because you know managing or the drawing the attention of 40 or 50 children in the classroom, engaging effectively all the children and maximizing their potential it is making them learn the things, measuring the their learning outcomes performance it is not a very easy task. So, 40 that is suppose in the classroom the 40 children. So, how individually we can attain to the individual needs and individual needs

and individual needs of the learner means a learner they have plenty of needs social needs, emotional needs, academic needs, physical needs so many things. So, attending to all the socio emotional needs, academic needs as well as of the 40 children and engaging the 40 children in the classroom.

And get the most effective learning outcome full then and adopting and motivating them towards the higher studies all kind all these kinds of activities are very very cumbersome, very taxing very you know very tough. So, for that matters every teacher they think over the teaching practices every after every lesson after every class they need to they need to reflect on their things. So, that is how can I improve better, how can I change the whole thing, how can improve the learning outcomes, how can you motivate the children more towards being the self self sufficient or self sustaining or independent learner all these kinds. So, it is the outcome of the reflective approach and in the process they not that the teacher practices it the process of thinking all these learning processes activities the teacher can also teach or guide the learners to be self reflective also to be self reflective. So, it is not just one sided for the teachers relevant for the teachers, but in this process of learning and teaching the teacher can empower, the teacher can guide, the teacher can train the learners to be self effective to be self reflective.

So, now the reflection process that what is being done why it is asking many question to ourselves how well the students have learned, how well they have understood and how that means, when we are engaged in measuring the assessing their performance] comes to formative and summative test etcetera. So, when we you know observe then what are the changes, what are the improvements that has taken place and why the if somebody fails somebody could not succeed then what could be the possible cases possible causes of these things all asking all the questions being reflective means asking all the questions what how when where all the things about our about our learners, about our students, about our practices, about the performance outcome etcetera. So, we can use this reflection as a way of simply not just simply learning more about our own practice. We can also focus on the problem the students are facing and empower the students with the self reflection practices. So, the pedagogical model here you can say what effective teachers do to engage to do in the classroom to engage the students in intellectually challenging work. So, how to again students engagement engaging the student is the biggest challenge. For a very gifted for a very bright and gifted child and also very docile and the under the below average child is equally taxing it equally tough it is equally challenging.

So, how to and for every individual the teacher has to think of different things different problems, different lessons, different topics, different ideas everything. So, 40 different every moment for every class 40 different ideas, 40 different engagement, 40 different topics are to be thought by the teacher to engage the students. So, it is a kind of you know continuous learning cycle. So, and this learning cycle is ongoing ever growing life long. So, this learning cycle is I can say it is a 5 stages primarily.

So, 5 stages first is the engage how to engage the students then after engagement how to explore what are the things, what are the key components, what are the underlying components, what are the basic meanings, what are the what is what are the factors that emerge explore then explain those things elaborate on those things and then evaluate the effects. So, this learning cycle of all this 5 stages of learning cycle is very important in the teaching learning process. As you can see it is a all this thing constructive approach they are primarily student centric and they focus more on knowledge construction, co-creation of knowledge all

these things. And reflective approach they primarily focus on continuous assessment of pedagogical practices that is the teacher not only reflects on his own practices, but also they develop a kind of you know develop a kind of approach that is to train the learners, to teach the learners to be self dependent etcetera.

So, their approach is more of an outcome based approach. Then the collaborative approach and assigning the teamwork team assignment team assignments and evolving and enabling the learners to participate to share the experience and learn from each other. Then again integrative approach they how to design how to integrate all the curriculums contents etcetera from different domains and disciplines and to prepare a wholesome kind of you know more effective kind of. And inquiry based approach is more of exploring the things problem solving more of more of more of engaging the learners to create their curiosity, their problem solving skills, their you know their keenness, their then to give them the scientific develop a kind of scientific temperament aptitude, scientific aptitude to explore to know something with experimentation with the you know with you can say with proofs and evidences and to have to develop a kind of scientific research mind set. So, and so now, again there are also different aspects of there are different aspects of pedagogy one is the social pedagogy for the social development of the child. And the students that we see in the process of in the process of education process of teaching learning process how they learn the different kinds of skills, generic skills, life skills, soft skills all kinds of things.

So, that is social pedagogy primarily you can divide it social pedagogy and culturally responsive pedagogy that is the culturally responsive pedagogical strategies to meet the requirements of all types of students. So, here we culturally responsive pedagogy we need to deal with the diversity. So, diversity among the learners, diversity among the students, diversity in the community. So, and the dimensions and the range of diversity can be can be from the personal to institutional to instructional different kinds of variations and diversities are there and how to deal with that. So, social pedagogy is to empower the child's learning social development, social emotional development not just education not just content based education, but effective communication all around development.

And culturally responsive pedagogy primarily to deal with the diversity that exists in the institution, at the personal level, in the students community etcetera. And so, that is that the modern day pedagogy it is more of interconnection of different learning ideas, ways, methods of training, coaching it is like it is a kind of like wholesome development all kinds of you know well integrated and multidimensional kind of things. So, so that is the it not not just takes into account the educational ecosystem, but also takes into account the teachers competencies, teacher training and again the resources, the curriculum, the content, then the practices, then the availability of you know resources, technology. So, it is a kind of n number of things to be blended to develop into connection connectivity of learning ideas, ways, methods and definitely technology has also enabled us to do so. Now, right now I am just stopping here and in the next class we will discuss about the other things. Thank you very much.