

Psychology of Learning

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Lecture – 39

Learning and Pedagogy (Contd.)

Hello viewers, welcome back to this NPTEL course on Psychology of Learning. In the last class we were discussing about the multimedia learning. Multimedia learning is assumptions, it is principles etcetera. Now, we will switch over to another pedagogy effective pedagogy that is the blended learning. So, blended learning unit combines the both the online education materials as well as some classroom with discussions of the physical or real life situations.

So, blended learning it combines online education learning materials and the opportunities for interaction online with the traditional place based classroom methods. So, it requires it is a combination of both the physical presence as well as the online contents. However, the process is little bit reversed.

Let us see because elements of the student control over time, place, path or place is there some elements because it it changes the that means, combination of mixing these students controls place, path, content, place all these are being a little bit it is it has been it requires little kind bit combination of rearrangement or re-organization of things. But the thing is that as you can see the thing it thing is that it is very convenient, it is flexible, it is more comprehensive, it also it is also so, it also supports the social learning. So, let us see in in this can in traditional learning model as you can see usually in traditional model actually students are responsible, but like in the class begins with you know begins with kind remembering, applying, knowledge, etcetera, etcetera and the students are given the homework usually. The students are given the homework you know related to the level of understanding that is higher level of thinking. It is the usual practices. We begin with the lower level of learning that is remembering, understanding and applying whereas, the students learn the higher level of thinking through home works etcetera. So, this is the traditional method whereas, the in flip learning the flip learning, flip learning is the is the reverse learning.

Flip blended learning is the combination of now flip learning is the reverse learning, flip learning is the reverse learning in the thing that initially the students will be given the learning material. Video learning online content will be given to given the content to the learners to go through it at home. So, instead of homework there is no homework rather they will be beforehand before the actual classroom discussion takes place they will be given this video content, lecture content, online content will be given to them and to and will be suggested to go through it go through to have an overview of all the thing. Then in the classroom then the discussion all the real learning takes place in the actual classroom like the actual classroom like. So, these three stages all these three stages to have a overview of the learning content means they will go through it have a basic knowledge understanding of the content.

Now, the higher order thinking processes like the organizing, creating, evaluating

higher order thinking skills and the discussion takes place in the actual classroom. So, they will be given the content video content, online content to go through it and then the discussion actually in the physical classroom all kinds of discussion takes place all kinds of exercises or threadbare discussion, question answer sessions all kind of things active participation, active analysis, critical inquiry all kinds of things takes place in the actual situation. So, here flip model flip learning is the reverse learning whereas, the blended learning is the combination of, but however, why the blended learning has been very effective because it is the that is the teacher every teacher every tutor every mentor they can design it as per their requirement as per their requirements as per their customers as per their target audience as per their learners requirement their developmental stage and the subject content is also subject discipline is very important then you know context is different. So, blended learning has been very effective all the time because there is a flexibility there is convenience there is comfort there is flexibility and there is social learning also takes place. Now, when if you mix this blended learning with the flipped approach flipped approach is the reverse learning like in traditional classroom we use to start introduce the topic in the classroom discuss apply etcetera and the higher order thinking questions like question answer etcetera will be given to the learners for the home study for the homework that is the traditional and the flip is just the reverse reverse to where the students will be given the content first to go through to have an overview to go through it and have a basic preliminary information about and the actual learning the higher order thinking learning brainstorming discussion question answer all kinds of analysis all the things are being done in the classroom ok.

So, thus giving the more giving more time to the classroom discussion ok. So, blended flip approach is that the flipped classroom is the reverse of traditional learning and blended learning is the combination of both the online educational material and the opportunities for interaction. So, when we are combining flipped approach with the blended learning. So, in the flipped approach actually the classroom discussion is very impressive very potential is very you know very important because maximum learning takes place or higher order level higher alternative thinking higher order level learning takes place in the actual classroom discussion in the flipped approach. And when we combine the blended with the flipped approach then definitely it requires the physical presence of both the teacher and student in the classroom and more the threadbare discussion takes place more dialogue more conversation more queries more question answer session more quiz more exercises all these things and elements of student control over time place and path and the space are also are also taking place in blended learning.

So, blended flip approach when it combines blended with the flipped is named as a blended flip and it combines both the online and offline and student interaction student teacher interaction and group discussion students are also allowed to ask the questions to the teacher and the more quiz more exercises activities all the types of pedagogies can be used in the actual classroom this one. So, it gives a clear picture more comprehensive more clear better idea very very you know it brings a very higher level of cognitive development more clarity better clarity insight critical perspectives metacognitive skills all kinds of thinking skills and cognitive development takes place in blended flip because here we are making it more flexible as well as we are spending more time more effort energy in the classroom discussion focusing on development of the higher cognitive skills ok. So, now why and how the blended flip pedagogy takes place now here is the one is the online thing and then there is a blended one and the face to face is the real in the classroom. So, blended at the best of the two instructional pedagogy then what is the best thing in the club physical classroom face to face learning and what is the best thing in the online learning. So, if we perfectly blend this to best

of these two environment of these two instructional pedagogy then then it can become some very effective.

So, how so, flex one is that the advantage is the blended flip pedagogy advantage is that is more flexible environment teacher creates the flexible environment anytime anywhere things and opportunity for the students should be given also to choose when and where to study what to learn etcetera because when the content will be given to them to go at to go through have an overview of this content online content video content at home. So, they can select that time and anytime they can go through the content etcetera. So, they can choose they have the choice of when and where to learn it and research shown that the blended flip instruction classroom is a more is able to improve the student's cognitive flexibility and creative thinking abilities because when the students they select their own time space and space. So, they go through it in detail they reflect on the content also they have the cognitive flexibility to reflect on these they also try to think about it in insightful way. So, their creative thinking skills because they can they spend more time more effort when they are going through alone as per their convenience.

So, that is the positive and the learning culture is that more time to discuss in depth about the each topic in the classroom ok. So, changes in the traditional learning culture into the learners in the class are actually in the traditional thing is that the teacher introduce the topics lecture etcetera gives the lecture deliver the thing etcetera in the classroom which are of the basic things introducing the topic etcetera, but the most difficult part would be given to the learner as a homework. The students are at, but here in the blended flip is that the students are actively involved in the knowledge construction better clarification discussion which actually takes place actually in the physical classroom. So, the classrooms situation the physical classrooms are being utilized for higher order thinking skills in terms of discussion, in terms of collaboration, in terms of question answer question answer session, in terms of group discussion, in terms of comprehensive presentation, in terms of quiz, in terms of even asking the answer asking the question more question to the teachers. So, actual that means, higher level or real knowledge creation construction takes place in the classroom.

So, here the content again intentional content teachers determine what they need to teach. So, here again content is also limited the video content online content is very limited that they have small quantity in small units, small difficulty level etcetera. The teacher decides what to be given to them, teacher determines what they need to teach and the learning materials as per the capacity how much the students can handle on their own. So, usually the video content online content should not exceed 20 to 25 minutes and again moreover their difficulty learning and the difficulty level of the content that should also be controlled that can be controlled. So, here intentional content as much it is required, but however, for using this blended flip pedagogy educators must be professionally trained.

So, more important in the flip classroom than in the traditional classrooms of the professionalism, professional training is more important by the all the educators should be trained about this professional skills that is more relevant for the flip classroom than in the traditional classroom. And flip classroom model needs instructors who can observe, who can observe and again who can also provide timely and continuously assess the work, give the feedback and all kinds of things. So, this is the model at home like in the here the how the classroom activity pre class activity, in class activities, post class activities are being categorized are being divided. And as you can see distribution of time how much even for flip classroom also at blended flip classroom also know the lesson plans should also be

perfectly designed. So, here as you can see maximum things of this in the traditional classroom maximum things takes place in this at home like at the level of memory, remembering, understanding etcetera maximum thing takes place at home.

Whereas, the higher level things limited things or limited things takes place in the at home maximum that is a homework. Whereas, in the blended flip what happens maximum thing takes place in the class like the higher level or the activity and analytical skill, evaluative skill, creative thinking all the types of thinking maximum takes place in the classroom whereas, the limited introduction application and understanding of the knowledge information takes place at the home because they have already been given the topic content as an advance in advance. Now, the in the researchers like the Bergmann and Sams actually blended learning was also there flipped learning was introduced few years ago that means, one decade ago. But Bergmann and Sams they actually they combined the though both the things the combined the both approaches blended with the flipped approach to and also he introduced it and also done his empirical work on to justify to analyze its impact and it has been found to be effective. So, the flip classroom based on now here different models are there cognitive flexibility theory also flip classrooms are based primarily on the cognitive flexibility theory.

And they introduced this two blended flip classroom model in 2014 to prove its efficacy and they have found the positive impact on the teaching learning process and learning outcomes. So, these are also two different types of again community enquiry framework this is also another research based enquiry model. There is educational experience how it can be the community of enquiry that is called it also encourages cognitive presence, social selective content, teaching presence these are also methodology of empirical method cognitive enquiry of framework like how it takes place and it represents a coherent set of articulated elements and respective models which can describing the higher learning experiences that is the enquiry enquiry based enquiry framework community is based in the community. So, community of enquiry framework is not just put on one contact the social presence is there cognitive presence is there again the teaching presence of the structure teaching presence of the teachers is also there. So, in this community framework community of enquiry framework, a lot many people are involved from the face to face to online to from physical classroom to discussion that is to explore to understand explore the relationships among the elements in a community in the sorry it is called community based pedagogy community of enquiry that is to understand the inter relationship various factors within the community of knowledge.

And you know so, this is so, this is the community of enquiry then another now the next important most updated pedagogy is the transformative learning. So, yes effective when you talk about the effective learning and pedagogy how to bring this of course, our focus is on positive learning outcome maximizing the learning impact when you learning benefits learning outcomes and how the how to how closely the learning outcome is related to the learning objective there will be minimum gap all of instruction objective and learning outcomes all these things. But thing is are when we are like the critical pedagogy theory. So, transformative learning says that it is not just about the benefits not just about the learning outcome it is not just about the positive transfer of the skills, but it is completely transformation complete change of the change of frame of reference, change of thought process, change of paradigm, change 360 degree change. So, that is the focus of transformative learning it is a new age pedagogy new age mode of learning.

So, transformative learning actually is the process of affecting change in a frame of reference that is it is not just about one change in the cognitive domain or skill development or this

knowledge or that is a complete change in our mental framework frame of reference our thought process our mindset. So, what is that frame of reference? A frame of reference includes it just not just about change in our behavior or thought, but it is a student's habit of mind habit pattern as well as the personal point of view. It is a complete transformation that is called the 300 degrees transformation starting from our mindset our habits our habits our emotional thoughts our values our ethics complete change within an individual. So, frame of reference the way we think the way we perform that is the complete set of behavior and thought process. So, students habit of mind as well as the personal point of view. So, the habits of mind are affected by the previous learning experiences cultural norms points of view and the students personal beliefs and attitude when we say that mindset perspective our perspective our orientation our mindset our attitude.

So, it decides that this mindset or habits of mind has been developed as a result of the interactions of our learning experiences our past experiences our cultural norms practices our socialization our personal beliefs our attitudes our all these things putting together that is of the habits of mind. So, how do we think how do we learn what is our perspective what is our attitude and behaviors. So, for this transformative learning that changing that developing the transform developing positive habits of mind sustainable habits of mind Mezirow identified four processing of learning process of learning. So, how these complete transformation takes place like for example, information to practice to reflect. So, it is an ongoing again transformative learning these three activities ongoing takes place continuously in from information to practice then practice to feedback that is reflect then from reflect to again new information then again new information to practice then a from that practice again new reflection.

So, this is the ongoing and transformation takes place in the cyclic way. So, Mezirow identified four process of learning first is that elaborate an existing point of view. Suppose a particular point of view perspective is there elaborate on that existing point of view establish a new point of view like suppose if you are getting some lapses in the existing point of view then we think of alternatives new insights new things. So, establish new points of view from the elaborating the existing point of view then we find we establish something new perspective new dimensions then transform the previous point of view which is existing to the new one. So, in this we are shifting from the existing point of view to the new point set of set of ideas new points of view.

So, the transform similarly transform the habits of the mind. So, when we are in the process of changing our perspective from the existing to the new one like the you know the way we have the we are using the assimilation and accommodation assimilation we try to interpret it with our existing experiences, but accommodation that means, we change it we reframe it restructure we restructure the new schema. So, then that is the accommodation we adopt it learn the new thing similarly transforming the previous point of view and transforming the habits of mind to the new set of ideas. So, when the learner first engages with the learning content or begins an assessment he or she tends to look for the evidences that support his or her new belief or the preconceptions notions. Like for example, when you are trying to elaborating on our existing point of view we try to scientifically validate it with the evidences with the clarifications with the justification with the you know with the any kind of evidence that supports our existing.

So, that is the when suppose we have some frame of mind we have some existing perspective we have some existing beliefs. So, in order to establish it that is this is the pre concept notion

in order to justify it establish we need more evidences example experimentation then validations etcetera. The moment we do not we do not we cannot do it then we seek for other alternatives that is the new probably this could be a better way this could be a new possible way this could be new insight we think of then we have to again rationalize that new meant of mind. So, once we satisfy our self we justify our self now this is more effective this is more sustainable this is more positive this is more impactful impactful etcetera then we try to switch over from the existing to the new. So, in this way whenever we try to shift from the old one to the new one adopting the new habits of mind that is called the transformative learning.

So, that is why the educational experience begins to transform from the student and as he stands to examine the alternate points of view. So, that is why we say that being open minded being democratic being open minded always seek the new perspectives new insights new ideas new you know you can say new set of mind a new bent of mind new you know new alternatives. So, that means, we also try to examine this the effectiveness validity of this new point alternate points of mind then we try to validate it we justify it. So, the two this so, these alternative points of view may then replace the moment we feel that we think that it is better these are more sustainable these are more effective these are more cost effective and these are more appropriate then we try to shift from, transform from old one to the new one. So, the two this transformation this transforms into the habits of mind when the learner can learn to look the things at different perspective differently.

So, being innovative here the being innovative being creative means looking at the different perspective innovative aspects new insights etcetera and finding it customizing it and finding it more more beneficial. So, when the learning takes place the student interpret the new information based on the previous experiences same thing same thing like you know a simulation and accumulation takes place the best happens when as a product of reflection on the learning itself. So, this best happens as the product of reflection on the learning itself. So, reflection on the learning it includes making inferences making hypothesis making discriminations how the information meets the challenges of the pre concept notion to the evaluating the new information validating it solving the problem or the dilemma etcetera this again the complete learning cycle. So, the in transformative learning process this change of habits of mind takes place in the sequential way.

So, the last is we can say that the students moral and ethical beliefs that there the including the not just the ideas about the content etcetera, but students moral morals and beliefs ethical beliefs and the challenges they are facing their perspective towards like the perspective towards jobs the perspective towards at work places perspective towards society their perspective towards the life as a whole changes ok. So, this process again it is a continuous process throughout the lives throughout the throughout the I mean the ongoing lifelong continuation lifelong education process it takes place be it is a personal life workplace life or the work related things or the informal life as a discrimination between active interpretation of knowledge and reflective interpretation. So, first thing is the active when we analyze something critically evaluate something we actively interpret it, but afterwards also we again. So, it is a continuous process active interpretation of knowledge and reflective interpretation when you adopt something again we reflect on this. So, active interpretation happens very quickly before all facts and nuances are evaluated because actively we adopted practices, but later on we reflect on this.

So, reflective interpretation of learning takes place longer sequentially slowly. Now, Sterling has introduced it that nothing not everything a student learns first learn to action. Sterling says

that and no matter how faculty members has tried to include the transformative education principle, but certain concepts will speak certain students like here the again students learner as an active agent active agent he has to. So, he has to practice extensively all these thinking processes like reflective thinking, critical thinking, creative thinking then only the transformation can take place. So, Mezirow's learning theory defines all these things and however, he has suggested for the 10 steps 10 steps for transformative learning to occur first thing is that disoriented dilemma.

First thing is that we get some dilemma some conflict some confusion some incongruence ok in our in maybe in our life in our social life in our workplace life or in our academic life etcetera. So, then we start begin with the self-examination we try to analyze it examine it there causes behind it. Then then in this process we face discontentment because incongruence it creates a kind of disharmony disturbance conflict dilemma. So, realizing others are also content discontent and have changed. So, a kind of some kind of discontentment, some kind of remorse some kind of stress also created.

Then again evaluation of the potential options that if we are like for example, it disturbs our harmony, mental harmony, cognitive. So, because all human beings it is in a in a tendency to restore to restore and retain our cognitive harmony that is the cognitive consonance. The moment we face any dilemma and conflict it creates dissonance disturbances and we for the longer period of time we cannot tolerate we cannot want we do not want we are not happy with dealing with that conflict and dilemma the sooner or later we want to resolve it. So, in this process then we try to begin we try to evaluate the potential options what are the options alternative sort of the solutions possible solutions are available. So, in this process critical assessment of personal assumptions possible solutions are there we again experiment we also try to experiment with the new roles plan a new course of action, new strategies etcetera.

Now then attaining the knowledge and skills to realize the action plan like in we try it out we try it out. So, and attain then in this process when you adopt it realize the action and action plan etcetera we try to realize we again realize whether it has improved my performance, it has improved my competence, it has given me more benefits etcetera. So, attainment of competence in the new role. So, we try to change our role by acting in a different way adopting a new plan and strategy. So, in this process in this new role do we really do we really attain the more competence and the skills and empowerment.

So, then again reintegrating the new perspectives then in this process if you feel that you were happy, we were satisfied we are happy content then we try to adopt that new role. So, here you can say disoriented dilemma first thing is that conflict dilemma is there then thereafter we go for a self-examination we try to analyze our self the factors internal factors external factors our attribution style all kinds of the self-analysis. Then a critical assessment takes place of both the internal factors and the external factors then recognize who identify where the problem lies actually recognition of the problems issues and challenges then we further explore it. What are the factors responsible when you identify the reason of this then we explore further explore the factors the associated the associated factors cause and effect all this further explore it. Then from there we plan chalk out a plan course of action plan we hypothesis something some strategic planning we chalk out.

So, accordingly then according to our plan strategic planning then we adopt we occur new knowledge new we try to apply the new plan strategy new role etcetera. So, the for the time being provisional trying the role. So, when we try to experiment with this new strategies new

plan of action new role etcetera. So, provisional you are trying it over that means, in the pilot phase we are in the trial phase then after that after this provisional after this temporary or the provisional role playing etcetera then we build the confidence then we evaluate it to what extent we have been successful to what extent we have been successful whether the whether is the most successful most effective way whether it is above 70 percent or 80 percent that we have been successful. So, and there is no better way of doing it in a beneficial way.

So, then when we assure our self ensure our self now this is the most effective way the building of the competence and self confidence then we become more competent more self reliant more confident etcetera. Now we determine that now this one is the is the best way of doing thing performing thing. So, that is the role transformation takes place. Here the role transformation takes place. Then with that transformation takes place then we integrate it in our present set of habits and attitude. So, then reintegration what was earlier it was there now we reintegrate this new format new transformation new transformative learning into our role.

So, this is the 10 stage cycle of the Mezirow's transformative learning. So, I am just ending it right now and in the next class we will discuss the other aspects of pedagogy. Thank you very much.