

Psychology of Learning

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Lecture – 46

Effective Learning: Assessment and Feedback

Hello viewers, welcome back to this NPTEL course on Psychology of Learning. So, today we will start a new topic that is Effective Learning and Assessment Feedback. So, let us see what are the factors under this topic like for example, all of us have been already exposed to new normal education post COVID during the COVID and there are certain implications. So, just to briefly discuss about what are the implication of this new normal education. So, for example, it has given us a little bit of food for thought for research for reflections etcetera and to revive and reimagine our educational perspective, educational you know platform framework etcetera and practices also. Like for example, the COVID has taught us many lessons.

Of course, it has both the strengths and weaknesses and we have been competent enough in technological front and its technology has been extensively used since COVID 19 since pandemic and it has been blended it has been embedded very much in the in the educational framework in educational and instructions. So, now, let us see when it has actually occurred instantly when abruptly during the things. So, at that point of thing it has it has certain initially we faced lot of discomfort certain lot of disadvantages etcetera. Let us say for example, the parent readiness for example, parents were unprepared completely unprepared to get ready their children for you know for classroom online classrooms and how to maintain the time then the timely submissions of their assignments etcetera.

So, besides the financial aspects like for example, suppose in the in a household if there are three children are studying then the for all three of them they have to have to have they have to have you know some different set of technical set up online set up platforms it was it was a little bit expensive, but however, it was it was a tough time for the parents as well for the preparedness. Similarly, the psychological perspectives from the student's viewpoint student's perspective is that for example, not it is not just a concern for the parents for handling their children it was also a you can say burdensome task for the children to get themselves prepared for the online classes and to be very much alert and sincere in this in the works and assignments.

So, readiness one how this readiness model for the new normal education has been prepared. Now, the teachers readiness the all this instruction school instruction school administration etcetera they have they have they were very busy in training the staff in training the teachers as well as the supporting staff to get ready with the all kinds of the technical facilities technical you know operations and not just to know about how the processes, but to address the address the failures address the setbacks address the technical nuances all these kinds of the. So, staffs will continuously are being trained teachers who are continuously being trained and so, in this during this period also lots of webinars from the NGOs from the foundations from the entrepreneurs from the industry experts etcetera they were all there were being organized to update the teacher to skill up skill the teachers as well as the other supporting staff.

So, and the same time at the same time the so, technology to that means, again the teachers were overloaded teachers were using that means, technology to extensively how to complete the syllabus complete the complete the syllabus and the requirements and how to adjust themselves with the new pedagogy etcetera. So, here even though the learner it was the basic you know theme basic objective or basic philosophy of this current pedagogy is the learner centered pedagogy, but and during that period during the pandemic they are very much pressured they are very much stressed like how to complete the syllabus with the technology and with the stipulated time. Then how to how to arrange the assignments and the assignments and the evaluation forms that is also another challenge. So, here they were that means, the learner centered pedagogy was less emphasized was you can say was a little bit ignored at that period because the teachers were over stressed with the technology use and how to complete the syllabus with the stipulated time along with the evaluation and assessment. So, this is the another set back and the socio emotional learning domain.

So, in the actual classroom situation when the children the students they are interacting with each other participating in various activities co curricular and the instructional activities etcetera. So, the socio emotional learning was ensured, but now during this period this period it is not very much that means, it is not very much that means, teachers were not very much sure about or that this socio emotional learning aspect has been completely ignored or you can say compensated or you can say denied because you know it was a completely remote learning benefits are remote learning. So, how far the students have been benefited in this remote learning. So, with respect to socio emotional learning that is not very very that is not very sure that is very much you know it is a question mark and is very much we are very much unsure. So, now, at the same time, the learners' preparedness.

So, it is a very critical factor that means, in the new set up in the new normal set up new technology enhancement new normal education set up how much the learners were prepared how much the how what is the learners readiness the because it is a critical factor. So, readiness of the participants of the learners of the children. So, because that is that matters a lot for you know for ensuring the quality of learning and the learning and learning outcomes. So, at the same time training the students on being self directed out during this because online platform the students the learners are supposed to be self motivated self directed self regulated learners. So, then only they can be benefited maximally, but at this period it was mandatory for everybody for the school children to the higher education thing higher education students.

So, how to train this young children to be self directed self motivated and to be techno savvy to deal with the all kinds of technical cliches of in class online classrooms and again how to maintain the net etiquette time management then the studies how to develop the study skills how to prepare for the online assignments all these were also were the important vital issues. So, now, how to adapt, but slowly and slowly study with the after slowly after sometime after one two semesters like that. So, slowly the all the children as well as the teachers they tried to quickly adapt to the new normal situations. So, however, after almost after one year almost we could see some of the benefits of the technology enhanced learning. So, here as you can see the data says the 60 percent of the students said that they are they would prefer to continue with the online education whereas, some others they were very much depressed because they were missing this classroom interactions or friend circle or the students participation.

So, 38.7 percent students said that they would be comfortable to join the school schools and the back to the classroom real classroom again, but again 53.3 percent students they said that they prefer the blended learning it is a combination of mix both the both the online and offline.

So, it was the result was a mixed kind of thing. So, mixed kind of thing because you know they after one year as the both the teachers and the learners they were adjusted they were tuned to a particular kind of you know classroom style teaching learning style. So, that they have started adjusting themselves with the new mode of education, but however, slowly and steadily again they would have to switch over to they have had to switch over to the normal classroom physical classroom.

But however, in the present stage now we almost prefer all of us we prefer blended learning mode whenever it is comfortable it is beneficial it is time saving it is comfortable to we are using the blended mode also. So, blended mode has been the very effective one. So, when we talk about the effective learning then we can see even the post covid post covid we can find out even though we are physically interacting we are have taking the classes we are participating in the actual classroom situation, but whenever it is required. So, blended learning platforms are also being preferred as beneficial as you know economical as you know as time saving also. So, that is so, that it varies, but nowadays we are more so, far as effective learning is that it is techno savvy technology based techno based learning platforms because technology tools have been extensively used for different purposes for classes plus learning resources for the online assignments assessment evaluation.

Even now for conducting the webinars conferences seminars etcetera it is much more cost effective. So, so, it is we can say that at the end of the day now for the effective learning can say the blended learning approach is most effective now right now. Now, coming to the what the new skills now of course, during the pandemic the internet connectivity was an issue for the remote areas especially. And initial installation of the infrastructure technology tools etcetera it was a little bit expensive and difficult, but after the primary setups etcetera then we were comfortable, but however, for the remote areas the internet connectivity was a issue. Now, what does the skills the 2020 teacher require and during this pandemic how what are the skills actually the teachers they learn and they are required to learn these things and beyond 2020 they also need these things.

So, teacher now the teacher's role has been changed even though in the learner-centred pedagogy it is more of facilitator kind of mentor kind of role the teachers are supposed to play, but post pandemic it is a more of facilitator. Facilitator that is who is available readily available to guide the learning processes. So, the along with the technical skills like how to use the technology as a tool technical skills then and other mentoring skills teaching skills the teachers are also supposed to learn some of these soft skills. So, soft skills that mean again that means, they have they have to very dynamic they have to very dynamic quickly switching over from one setup to another setup from online to offline to again blended platform etcetera. So, it is their role is constantly evolving.

So, the future teachers like that means, post COVID. So, post COVID and for the future the future teacher would need the following skills to thrive in the 21st century, that is for example, not only just the strong subject knowledge, but also being a facilitator. Facilitator in you know in addressing the problems that the teacher the students are facing they are to understand their learning needs, their learning styles, their that means, the know hows, know whys of their learning outcomes and performances. So, being a very good facilitator to facilitate all the processes all the all the to facilitate all the learning processes the hurdles they are helping out the hurdles they are obstacles they are facing to ease out and to give them the directions etcetera. So, facilitator to facilitate the whole process of teaching learning process and the strong social skills again that means, to ensure the social emotional learning.

So, learning and teaching neither teaching learning is not just about the instruction not just about the communication not just about the knowledge acquisition or exchange of thoughts, but it is also social emotional learning. Because you know all of us we all we learn that means, we human beings we learn from three domains our cognitive domain is active where from we knowledge acquisition creativity etcetera takes place. At the same time we must love to learn that is our affective or emotional domain is also equally responsible and important and then our behavioral domain that is psychomotor performance etcetera. So, in order to coordinate all these three domains cognitive affective and the psychomotor domain behavioral domain. So, we all these all these three is all these three domain needs to be coordinated properly to ensure that maximum learning has taken place and learners motivation is there learner is more self motivated.

So, to ensure all these things so, the teacher that means, the teacher should ensure that that social emotional environment and the interactions the positive interactions and to ensure that the students the learners they are learning together in the socio emotional environment. That means, they are not just exchanging thought thoughts and the ideas and the learning concepts, but emotional they are also learning to emotionally share to emotionally cooperate collaborate all these socio emotional skills also they are learning. So, here the teacher also needs a strong social skills to mobilize the learners to also learn mobilize the learners to learn the social emotional skills. So, that they are they can they can because in the online platform primarily it is the collective learning prime primarily some situated learning primarily collaborative learning often very often they become they are a member of the learning community and they have to submit certain group assignments etcetera. So, how to be a part of online learning community also and that also requires what sort of soft skills emotional skills motivational skills and social skills that the teacher has to facilitate.

So, the teacher also needs to develop this social skills to ensure and to exercise these kind of skills even in the blended learning platform or online classrooms. So, external focus so, they have to again beyond going the the teachers they have to focus expand their focus and attention beyond the content it is not just syllabus and content beyond the content. So, to adding the peripheral aspects of the teaching learning process like for example, right now just outside the socio emotional development of the learner their learning styles their then they are how to ensure their that means, how to induce the curiosity and innovative ideas curiosity, curiosity creativity among them is also external focus is that beyond not just the learning environment content, but beyond that beyond the classroom situation or the syllabus. Then the data analysis and at the end of the every session of the classroom or the club of the year etcetera the data analysis data analysis because especially primarily the learn online platform. So, we need to have the large data and analyze all these things because otherwise we cannot predict predict or assume that what the students actually learners actually feels or they want to what extent their needs are being fulfilled and what are the what are the drawbacks or what are the discomfort and difficulties they are facing because again in the online platform this individual difference is also there.

So, even though we are and in attending online classes or online classes or they are handling the large number of students. So, we cannot justify we cannot give justice to individual learner by catering to their individual needs. So, here we need large data analysis. So, by collecting the data through different questionnaires through assessment tools etcetera we need the data analysis data analytics. So, data analytics at the end of the day can give us some trades can give us some idea some trades about the learners learning style or their you know their needs

or features or the skills they are required to brush up again.

So, also large data analysis is also again it is that has become a impartial you can say part of this education system when because you know with online classrooms and with expansion of education. So, our students' strengths also increasing enormously. So, how to handle large number of students? So, the classroom is not limited to 40-50 students rather in hundreds. So, in online classrooms especially in online classroom large classroom how to deal with how to cater to the individual needs or the how to deal with this individual difference factors and at the same time we have to ensure that the learning outcomes the expected learning outcomes should be ensured. So, the 2020 so, therefore, the national policy again national education policy also 2020 it also it has also emphasized on the continuous evaluation systematic training of the teachers continuous and comprehensive evaluation of the learners continuous training of the teachers and how to deploy how deploying the technology in teaching that means, technology has technology has been embedded in a technology in teaching learning process extensively.

So, so, again beyond that so, how to deal with the how to deal with the different kinds of you know other setbacks that we are facing because of the technology embeddedness. So, how to deal with these human stress or academic stress learners stress teachers workload teachers burnout how to deal with these things. So, we have to learn to keep our self with the life skills and how to build the resilience and what could be the possible solution to the educational needs of not only the teachers but teachers, but also the professional development of the teachers as well not only the academy needs of the learners, but also professional development needs. So, what does the today's teacher need to be successful in the classroom? So, here it comes again how to make the teaching learning situation more successful. So, it is what is the real role of the teacher because here we are focusing more on effective learning from a teaching perspective.

So, teaching skills of course, the digital skill has been has been a very very important factor. So, digital skill does not mean only handling with dealing with how to run this Google meet and you know MS teams or zoom or this and that etcetera, but you know we have to explore the resources available online. So, here the digital skill is that the teacher has to extensively use it and not just for the classroom activities, but for exploring the new resources in terms of content, in terms of research, in terms of updated software, in terms of research analytics all these things. Second is that so, improving the so, by improving the quality of the course and teaching learning materials and access to need also it also equips the teacher with the tool. So, why do we need the digital skill because not only to explore the resources, but the these technical skills knowledge and research let us research inputs can be can be blended in the teaching in the teaching learning contents level delivery etcetera.

So, so and now we can also store large number of information resources you can store in Google drive how to handle it again how to prepare the teaching notes, how to prepare the digital lesson plans, how to prepare the assessments, it is all these for all these thing that you we need that the teachers they need the digital skill. So, technology has is also available to aid the communication. Now, the communication is not just through mail or through whatsapp, but also beyond that there are so, many other platforms are also there then we have to familiarize the teacher has they have to familiarize with the latest way of modes of the communication. So, life skills also again life skills in education is very important because it is it is more related to human resource and teaching is a you can say is a is a is a socially responsible profession that means, we are the teachers are accountable to the society to the

community. So, investment in a life skill is very much required.

So, and teacher training programs would be continuous in the sense the balancing this life skill education, technical education, self management, work life balance and at the same time to be engaged in the updated research activities and since so, again creativity and resourcefulness. So, the teaching style that again the teacher has to be innovative and creative in exploring his own teaching style, changing it changing the pattern not to follow a very fixed kind of teaching style, but to be flexible dynamic as per the requirement of the situation and how to how dynamical how creatively he can change he can every semester he can change his mode mode of presentation, evaluation how lively how innovative he can make the classroom. So, it can give a spirit of you know inclusive education, creative education. So, here the teacher can also introduce the participatory kind of education which demands a creativity and also builds it also will need best approach to teaching also. So, at the participatory education as per the catering to the not just to the needs of the now needs of the learners, but also how to make them more innovative creative and ignite their curiosity mindset to be self oriented to be self motivated to be self regulated learners.

So, again yes adaptability and innovation is very important to develop the resilience then at the same time critical thinking problem solving a adaptability innovations how these skills can be embedded through curriculum through the content it has to be embedded through lesson plans through lesson delivery through activities. So, yes of course, communication is very important how to use these tools not just to communicate effectively, but for, but extensively use it for you know for tutorials, for the research, for a hands on activities, for you know discussions, for deep learning, for you know for online projects online projects etcetera. So, there is also the above also the teachers have they have to cultivate an ever learning mindset. So, the teacher themselves in this process the teachers also learning themselves. So, they are continuously learning and they are also delivering the new kinds of pedagogical innovations and they are trying it out in the classroom they are trying it out among the learners and at the same time also getting the feedback.

So, effective strategies for how to learn effectively can also help us knowing that we exploring, exploring reflecting on how to get the better strategy, more effective strategy, how to learn, how to motivate the learners to learn. So, first of all that the learners should love to learn should be self motivated to learn and how these new ideas can be acquired, how captured, how the concepts and the skills can be taught in a very effective way all these aspects are very important. So, there are certain psychological principles also to enhance the students learning. Now, we will just go through the psychological principles, how the students like you know all of us all of every time. So, whenever learning and teaching comes all the coordination of the three domains of learning is important.

Cognitive learning, knowledge acquisition, thought thinking processes all kinds of things and the affective learning that is motivation and emotional intelligence, motivation, values etcetera then at the same time psychomotor and the behavioral. So, coordination of all these three domains are very important. Now, the principle one is that so, the belief or the perception first thing is that the belief or the perception such students have about their intelligence and their abilities affect their learning and the cognitive functions. So, here at the question is that the students self belief, the students self perception that how do how do how much intelligent I am whether I am I will be able to complete, I will be able to qualify, I will be able to score or to get a success grade successive that means, success score or the pass mark or the good rank or the grade. So, that self belief and the perception of the students about themselves self

perceptions that also affects their learning and cognitive function.

Suppose for example, sometimes suppose if the even if the student is a mediocre is average student, but he believes in himself he say that he has with lot of effort and all these things kind of extra resources, tutor tutorials etcetera I can compete I can. So, that basic confidence that yes I can do it I am whatever intelligence I have got I can cope up with I can complete all these things. So, the belief and the self perception of the students about themselves matters a lot. Then for example, if from the very beginning the student thinks that I am not intelligent enough to be a technical student or so and medical student etcetera. So, that itself is very discouraging that itself is very discouraging.

So, here principle one is that that is why the teachers role is to encourage. So, first thing is that in the initial stage at the entry point the teachers who first thing is that teachers should not judge anybody, that the teachers should welcome the accept the students as they are, but after that they can motivate them towards the learning. So, but the first principle is that we have to be careful about the teachers' students' learners' beliefs or perception about themselves that can also affect the learning. So, students the students who think themselves consider to be the intelligent they can they can overcome all the obstacles all the obstacles their energy level is very high their self confidence their motivation is very high.

So, students tend to get better. So, these kind of students also get to better result get to tend the better results. So, for that also that is principle one psychological principle one that which actually functions in this classroom situations. Principle two is that what students already know affect their learning that is the past knowledge past learning past learning experiences past knowledge that definitely affects a lot because you know background knowledge past knowledge that affects that that influences the present learning. So, and yes of course, after coming to the classroom the class social interactions the sharing the knowledge sharing the knowledge and again and they sharing the knowledge and the classroom discuss participating in on classroom discussion etcetera. So, they are exposed to the new learning, but however, they tend to always tend to simulate the new knowledge according to their previous experiences.

So, that is why we say that is why we say that the child's preschool experience should be very much enriched because whenever the child is coming to the regular classroom primary school he should be well exposed to all kinds of experiences all kinds of again they are also exposed to social minimum social interaction sharing and all kinds of you know sharing and all kinds of the you know friendly relations interactions with the peers children. So, that is kind preschool idea is that to give the exposure to the children to the all kinds of enriched environment not just in terms of learning tools concepts play materials etcetera, but in terms of activity in terms of peer interactions primarily peer interactions. So, the students' entry behavior or the past knowledge also influences the present learning behavior. Principle 3 says the student's cognitive development and learning is not limited by the general stages of development. As per the general developmental psychologist like the Piaget etcetera Piaget have elaborated that how cognition develops and according to different stages.

But now the principle says that students this cognitive development is not restricted it is not limited to this stages of development. So, it can also it can also take place in a very fast way that means, it can be it can if the train can go ahead the train can deviate and it is not limited to this general stages of development as prescribed by the different theory different psychologist developmental psychologist. So, learning is not limited with the exposure with

the stimulus with enriching stimulus environment classroom exposure interaction and all kinds of environment. So, this cognitive development can exceed can go to that means, we cannot keep it in the tight framework that it should be it should be mapped in this way it should be it should proceed in a very scale in the in particular scale etcetera, but it can go beyond the general stage of development. And principle 4 is that learning is context based definitely learning is contextualized learning because in all of us we learning in a situations in a particular environment classroom situation and then that classroom context itself plays a important role.

So, that is in the online platform online platform. So, learning online platforms to how to ensure that how the online platform that context is being is being helpful to the learners that is also a question. So, so for the learning to be very robust very effective it is very essential to extend it to the new context where if you can make the environment context very enriching with the different kinds of stimulus with the different kinds of examples exercises activities all these things. So, learning can itself be very successful and fruitful. So, that is learning is context based in the particular context in the particular situation particular environment it takes place. And that environment actually how to we have to enrich that context facilitate the learning.

And then the acquisition of the knowledge and the skills in the long term depends largely on practice. Like for example, now we are learning many things in the classroom it is about how long do we keep we can remember it how long and in future maybe the how often we can exercise we can retrieve it we can use it. So, for that in order to in order to ensure that we keep we retain it for the long term for long term purpose or you know long term memory. So, we have to practice it again again.

So, here comes your mastery learning. And mastery learning primarily focuses on to repeated practice for again and again repeated practice. So, that once it is the learner acquires the mastery over the particular skill or the knowledge or the content etcetera then we can ensure that same learning is being retained in the long term memory. So, now, I am just stopping it here and in the next class we will continue with these principles. Thank you.