

## **Psychology of Learning**

**Dr. Atasi Mohanty**

**Humanities and Social Sciences**

**IIT Kharagpur**

**Lecture – 47**

### **Effective Learning: Assessment and Feedback (Contd.)**

Hello viewers, welcome back to this NPTEL course on Psychology of Learning. And we were discussing about the effective learning. So, to continue with this thing we are discussing about the psychological principles. Now to continue with this now the principle 6 psychological principle 6 says that the clear explanatory and timely feedback to students is very important you know for learning. So, here comes the when so far as the effectiveness of learning is there.

So, feedback role of feedback is very important. So, the so both the generic and non specific returns do not favor the correct learning towards the students. Like for example, clear cut clear cut specific feedback about their performance about the learning outcome actually helps a lot. So, therefore, timely feedback and timely feedback and specific feedback and accurate feedback and objective feedback actually helps a lot in understanding their own progress.

Then principle 7 says that students self regulation aids the learning and self regulation skill can be taught. Self regulation here we are that. So, slowly and steadily when the students are the learners they become self motivated or motivation has been created initiated among them. So, say become they become more self regulated then focused self regulated that means, they not just observe and monitor their own performance they become very you know vigilant about their progress their success their failure. So, that is and they can.

So, they regulate their own learning behavior like developing the right kind of study skills time management focusing on understanding comprehension completing all the assignments. So, that is the self regulation that is the they can monitor regulate their own academic behavior learning behavior. So, and gradually slowly develops the self regulation skills academic self regulation. So, that that actually helps the learning and that actually enhances the performance. However, in the initial stage may be at the early stage there is all the learners they are not self motivated.

So, hence self regulation may not develop at the very early stage, but however, it can be taught it can be taught by it can be taught by the teacher by through proper instruction through demonstration through example etcetera. So, some techniques like self control correct planning division of the task then some of the mnemonic strategies like memory strategies and techniques these things can be taught explicitly by the teachers. So, to manage to plan their academic activity to manage their studies. So, these kind of like what are the tips like the tips for effective preparation of exam tips for memorizing certain things how to learn effectively different subjects. So, how to maintain the self control all these kind of correct planning time management mapping our progress self check exercise all through all these kinds of activities that this self regulation skill can also be taught can be demonstrated by the teachers and it can be taught to the learners.

Now, next is a student creativity can be encouraged again students creativity that everything is that every individual every individual learner every individual human being also we have general abilities and some specific abilities. So, individuals when we say the individual differences are there the all the individual all the all the learners all the every individual learner they have some specific ability some specific ability, but in which area they are that may differ, but some are other specific abilities. So, how to encourage them to identify to you know to develop to nurture and to flourish these specific abilities. So, it may be in a it may be in sports it may be in artistry it may be in music it may be in dance it may be in any field. So, but that is how to identify the specific quality specific ability of the learner each and every individual learner and to how to identify how to nurture how to nourish and how to groom and develop these kind of things.

So, in this way students creativity can be encouraged from the very beginning by giving them the some of the basic requirements like by giving them enriched environment exposure to different kinds of stimulus then freedom independence then they incorporating the play way method relaxation different kinds of liberty. So, all these kind of that means, the conducive learning environment by providing the conducive learning environments these individuals particular every individual child of the learners specific ability or the creative ability potential can be identified. And that can also be that can also help in educational environment you know in you know performance in performance beyond academics beyond educational content. So, that can be encouraged then. So, then again comes when so far as the motivational concept is concerned how to motivate what actually motivates the students how to motivate students because motivating the students and the learners the biggest challenge.

And it was it was also it is very tough even in the online classrooms because in online classroom drawing the attention of the learners and motivating them towards the learning it is very it was the toughest task. So, principle 9 says that students tend to enjoy the learning and have a better outcomes when their motivation is more intrinsic than the extrinsic. So, motivation is more intrinsic. So, here we have already discussed the motivation is intrinsic when the learner is more self motivated motivation is from within the individuality his inner that means, from within his inner self inside his own thought process inside in his own emotional domain he is self motivated. So, that is called the intrinsic motivation that is without any external reward or incentive the student learner is self motivated towards learning that is the different thing.

And extensive motivation is required that is to supplement it. So, the students they tend to enjoy the learning actually they are when they are self motivated they enjoy the whole learning process. Some students when they are very beginning they are very keen to you know keen to learn certain subject specifics they have the you know they have specific inclination towards learning literature or mathematics or any particular subject geography etcetera. So, because they are intrinsically motivated to that to learn that subject and they enjoy that learning ok. So, that is at this motivation also it also enhances the involvement with the activities that facilitate the learning and that and that also in this process the it is a again is in this journey the learner actually enjoys the whole process of learning and it also helps him in building the confidence.

So, then so, how to say here the thing is that the teacher should encourage the students and the learners to be motivated self motivated you know by through conversation by you know by encouraging them towards picking up some preferred subject some content how to how to self discipline yourself how to develop the self learning self learning techniques as self discipline

self motivated learning process and in this process they can also boost the strengthen their intrinsic motivation. And then principle 10 is that student persist in the face of challenges task challenging task and process the information more deeply when they adopt mastery goals rather than the performance goals. So, here in the in the last class we have discussed about the practice and suppose for in order to retain the information for long term purpose in long term memory we need to practice it and practicing practice mastery learning goals actually primarily focuses on more practice the more we practice the more mastery we gain we acquire. So, another thing a type of goal is the performance goal for example, we are learning either to perform or to must have the mastery performance goal is then as much that is required to qualify to pass to secure a good grade etcetera that is the performance we are performing to performing and achieving the goals as per the requirement as per the requirement may be up to the CGPA or grade point etcetera. So, here we are the our goal is to perform well to secure a good one, but whereas, the mastery learning goals are primarily focusing on more mastery of the subject more mastery on the subject on the skill on the domain etcetera.

So, more and more and more the so, you can say more and more the more even though we know many much more about the thing, but still we go on. So, if the learners are more oriented toward the mastery goal that means, they are inclined deeply inclined from within to learn the subject into the depth because the subject fascinates them because they love the subjects. So, their orientation is more towards the mastery goal ok. So, even if they have achieved the good marks etcetera, but still they are motivated to learn many more things. So, that is the mastery goal.

So, if the students are related to are inclined to mastery goal or they are the adopt well towards that mastery goal and oriented towards the achieving the mastery goal. So, even if they face different challenges different hurdles etcetera, but still they persist they still continue this process the information deeply because their intention is to achieve the mastery. So, they can easily overcome because they are self motivated to overcome that problems. So, mastery goals are those that regarded towards the acquisition of improvement of skills. So, day by day they are improving.

So, it is not just there is a nowhere there is any that is the enough of this there is a stop is that is stop now it is now it is the end of the things no nothing like that is the continuous development it is a continuous improvement. So, principle 11 that teachers' expectations of their students affect the students and opportunities to learn their motivation and learning outcomes. So, here it is also called as the otherwise called as the Pygmalion effect that is the teacher's expectation from the different students about their purpose. Like in the classroom suppose 40 students are there and if the teacher although all the good students are the are primarily sitting in the front range or the that means, they are very active they are very alert they are very you know very responsive in the classroom. So, the teacher's attention primarily focuses on those students, but so that means, the teacher's expectation from these students are also very high.

The teacher expect all these are the good students to obtain the students they are they study well they are they are highly motivated they are talented they are potential they are having the potential etcetera. So, the teachers expectation from those front runners front ranking students are very high. So, as per the teachers expectation the students also perform well because they are from the teacher's expectation also it gives a kind of motivation also motivation to scale up their performance. So, here the thing is that it has a negative impact also like the teachers expectation definitely affect the students performance. But if the teacher does not expect

suppose some of the back benches are there some of the poor you know poor readers are there some of the low achievers are there.

So, if the like the for example, if the teacher exhibits so of so of that the teacher discourage them by showing that and it reveals it you know it reveals that the teacher does not expect much from those students that the etcetera that can also affect the students performance. So, that is a the teacher does the irrespective of the differences irrespective of individual differences diversity etcetera the teachers would motivate all the every student equally competently equally motivating everybody. So, that when the teacher's expectations from the whole class increases the students performance is also automatically increases. So, teachers expectation affects the students opportunity opportunities to learn their performance etcetera etcetera and that is called the pygmalion effect. And this happens because sometimes the students they tend to accept the few expectation that the teachers have about them.

Sometimes what happens even though the learner is a very average student is not so motivated, but the way the teacher's encouragement expectation etcetera etcetera he is the learners they that means, he tries and he is tried to achieve more marks. So, then principle twelve is the short term proximal and the specific and challenging objectives are more motivating than the long term objectives. So, here when you say that learning goals when you say that learning goals learning goals how to set goals career goals, academic goals, learning goals to teach the students about and how to formulate the goals which has which are you know short term goals and the long term goal. Long term goals is far away and before long term goal we have to set some short term goals and how the short term goals can be translated into a actionable achievable objectives learning objectives. So, these things can be can be taught can be elaborated to the learners can be can be demonstrated.

So, short term proximal and specific short term goal near which is shortly weekly may be weekly monthly quarterly. So, that kind of goals with the short term period short term short term period with the specific action plan some specific objectives and little bit challenging also little bit challenging also these type of goals and learning objectives are more motivating than just keeping putting something long term your long term goal like after the semester or after the year this final year you should be you should achieve like so and so etcetera it is not that. So, how to frame short term goals specific and specific goals and how these goals should be translated into object specific objectives and the action plans. So, all these things can be demonstrated and talked to the learners. So, as we set the goals, we are somewhat stimulating our performances.

So, so the objectives are very close to our performance. So, when the specific achievable objective is that we can achieve that is the is very close to our performance and very close to our action plan very close to our effort that how can be manifested. And another is the socio emotional area that is socio emotional learning which is the because socio emotional learning is very important part of the teaching learning process that is what is the very social context because there is no learning is situated learning is contextualized. So, why are the social context in again interpersonal relationship, emotional well being, classroom interaction these all these things are very important to learning. Like for example, you might have observed in the very when the school days usually some children are very very much highly enthusiastic about going to the school every day.

That means, they love to go to school they do not want to remain absent in any of the day. So, that means, their love for that campus, love for that school environment, love for

their classroom interaction. So, that is very important. So, how to so that means, they beyond home they just they identify themselves with the membership of this classroom environment with the school with the classroom situation the friend circle the peer groups etcetera. So, here the socio emotional learning takes place.

So, the socio emotional attachment, the socio emotional affinity, the interpersonal relationship, the all these things that that is where the classroom environment, the classroom culture also, the educational culture, the environment, the interpersonal relationship, the activities everything that the whole school environment itself that gives a kind of feedback for a kind of information message about the socio emotional learning environment. Then the next is principle 13 that is the learning is situated within the multiple social context. So, learning is situated even in the within the classroom within the school environment there are different classes like math math classrooms, math teacher, math students, then obstacles, then the C P W, then your computers class, then the art and craft class, then your sports class. So, every individual subject class environments are you know are the group context are the different social context. So, within the school environment itself the learner is that student is and he is exposed to has been a part of the different different subject groups, different learning groups, different contextualized contextualized learning.

So, he is exposed to multiple social context is not just one, but it is multiple social context and he learns from different groups he learns to how to participate effectively how to interact with different set groups. So, this is a unit this is in this way the learner also learns the social skill. So, social skill is very much embedded in the emotional development also. So, the teacher must be able to access the different kinds of knowledge generated in the different context you might have observed in different sports groups, in different in the art and craft, in the mind even in the cultural groups also different kinds of groups they you know they when they are interacting. So, different news, different messages, different feedbacks, different issues are coming up and the teacher they have to deal with all these things.

So, to that means, to resolve all these conflicts to chaos to you know to feedback to cohesiveness how to form the groups cohesiveness all these things can be can be can be very good very good platform for the socio emotional development of the learners. So, then interpersonal relationship and communication are the fundamental of course, interpersonal relationship one to one in a relationship one to many that within the classroom outside the classroom and in between two friends that means, within the just the just my the just my neighbor just my the my classmate who is sitting just nearby to me. So, all kinds of interpersonal relationship and the communication these are very much fundamental to teaching learning progress and communication among the children, among the learners, among the students one to one, one to many as well as the teacher student communication, student teacher communication, parent teacher communication all kinds of things because this is these are the base of the social and emotional development of the students. So, and a principle 15 says that emotional well being influences the educational performance learning and development. So, automatically besides our academic competence skills, knowledge, performance etcetera socio emotional development in the different context social context in the within the campus and the and beyond the classroom environment that is in different cultural activities and co-curricular activities.

So, how the emotional development takes place? So, emotional well being. So, when the child feels confident, when the child feels happy, when the child learns the various kind of social skills and know learns how to communicate effectively, how to be self-reliant all kinds of the

communication skill and emotional skill that enhances that ensure the emotional well being. That is there is no conflict, no chaos, no trauma, no depression nothing. The child is emotionally well that means, emotionally sound, well and emotionally happy and because emotion can strengthen the motivation also. So, that if the child loves the classroom environment, college school environment etcetera definitely will be more motivated towards you know learning the content, participating in different kind of activities etcetera.

So, educational performance is very much being influenced by the emotional well being and the learning and development and the learning context. So, now the learning context area the principle 16 says the students can learn what expectation social interaction classroom behavior are through the effective training and demonstrated behavioral principles. So, as per the group in group interaction as per the social interaction group interaction teachers expectation the students can learn they can perform well also through effective training like special some special tutorial, some special lab classes, some special demonstration, some extra behavioral tips, study skills tips etcetera they can also learn perform better. So, that is the teacher must be responsible for transmitting them at the beginning of the course and then enforcing them throughout this. Like every moment through the feedback they should be guided, they should be that mean guided, they should be motivated, they should be encouraged, they should be you know they should be given extra attention through tutorial.

So, you know special classes also some special classes so, then they can perform well. So, effective class so, principles of effective classroom management is based on high is based on first is that come to convey the high expectations, second consistently foster the positive relationship, third is to provide a high level of support high level of support to the students. So, in effective classroom when we talk about the effective learning environment in a so, effective classroom says that it should be based on three things. First is the high expectation from the teacher side and that teacher can encourage all the learners to expect to you know to raise their performance level to put more effort to get more organized, more self-regulated, more self-motivated. So, high expectations at the beginning can be kept, secondly consistently foster the positive relationship, encourage the positive relationship, positive interaction.

So, because that also helps a lot in performance in learning a better learning and performance and sharing and sharing the knowledge, helping out the things, peer tutoring all kinds of thing positive relationship and high level of support to the students. So, in case of any you know any doubt, any kind of obstacle, any hurdle anything so, the instant helping hand, instant help support system, support to the learners in removing their hurdles and removing their doubts and clarifying the things etcetera. These three things it can be put together, it can make the classroom environment most effective. So, all these factors contribute to generating the adequate climate here classroom climate, what is the school climate, classroom climate and thus it favors the learning experiences. Because whatever we learn not just in terms of knowledge acquisition, but also socio emotional learning, also behavioral performance, behavioral skills also.

So, all these things to all these three things put together or happen together in the particular environment context. And that environment and context that also gives us a kind of you know continuously over a period of time it gives us a experiences teaching learning experiences not just one days event or two days events, but it is a continuous process. So, as this teaching learning exposures experiences or takes place over a period of time. So, that that is you know that becomes a part of our learning experiences. So, adequate

classroom culture, classroom environment, resources, conducive interpersonal relationship all these things it gives it gives a kind of you know background of our learning experience.

And learning experience matters a lot in learning the new skills and competencies. So, now, here comes for example, now this is about the effective classroom management. Now, how to assess students progress? Now, the teacher has made his all effort put his all effort made any every attempt to make the classroom a very successful classroom. Now, how to assess, how to evaluate, how to measure, how far the students have made progress? So, here the principle 18 says that both the formative and summative assessment takes place. So, what are the formative and summative assessment takes place? Formative assessments are from time to time like the weekly test, unit test, monthly test.

So, that is intermittent test that takes place to map the progress to observe to measure the progress that the student has made in a particular subject and to subject to subject any unit etcetera. So, that means, intermittently take place that is that is from time to time. So, and the summative test assessment is towards the end of the session. So, the formative test is that the former used to guide the classroom activity directly. For example, how far he has made progress, how far he has understood this problem, how far he has learnt the lesson, how far he has understood the lesson that is each for each unit each topic etcetera.

But the second that is for the summative assessment is that towards mapping the whole performance, whole learning outcomes towards the end of the session that is judgment of the student's progress made over a period of time that is the summative. So, this primarily this formative and summative assessments are very important and useful for mapping measuring the student's progress. But some so now, but the national policy says that comprehensive formative and comprehensive formative evaluation and comprehensive assessment. Comprehensive assessment from time to time that to comprehensive that takes into account all aspects all aspects of the students progress, it is not just about only maths or history or particular skill or comprehensive that is overall all the aspects and formative from time to time. Formative and comprehensive aspects continuous again continuously taking place.

So, principle 19 says that to assess the student's skills. So, it is not just about the content knowledge skills, knowledge, abilities is through the procedure based on psychology and well defined standards and the quality of and standards of quality and impartiality. So, how to like for example, so far is how to evaluate how to assess their skills, knowledge, abilities, strengths and weaknesses. So, we have different kinds of psychological tests to well defined standardized tools and both quantitative and qualitative how impartially how we can assess and evaluate the students you know student strengths, student skills, knowledge, abilities as well as what are the problems the problems hurdles they are facing, how they are learning and then how they are performing, where they are lagging, how where they are excelling all kinds of everything can be can be can be identified, can be examined, can be interpreted through the standardized tests and the tools tools. Now, the next is that to how in order to properly assess the evaluation, if I will assess the evaluation data it is necessary to interpret them in a clear appropriate impartial manner.

So, again to assess again assessment can take place in different formats, different in now so we have to use diverse ways of you know multiple choice, short answer, objective test, qualitative test, rating, observation through observation, through you know through participation, through collaboration, different modes in through different modes and methods we have to observe and identify the both quantitatively and qualitatively. Then again after

collecting the data then how to evaluate the data impartially, statistically usually we use the statistical method to interpret it in a very clear, very lucid, very appropriate and impartial manner without any bias. So, it is a kind of very often we use the mixed method mixed method to mixed method to assess their assess their performance abilities not just only quantitative, only pen and paper test, only objective test, but varieties of the things. So, how so assessment and feedback is also a very innovative aspect, because through how maximally how accurately we can assess this to learners progress and not just the progress, but their difficulties, there is a discomfort, their problems where they are lying. So, it is not just about the end result, it is not just about how much they have secured, what is the score, what is the grade, is not the not about the outcome, but it is about the process the learning processes, for how they are learning, where they are excelling, where they are failing, where they are facing the problems.

So, it is understanding about the whole learning process it's not just about the learning outcome, but knowing the whole learning process the way they learn, the way they perform, the way they understand, the way they manifest so all these things would be assessed and evaluated and timely feedback should be given. So, for assessment and feedback we have also separate topics. So, but again teaching and learning are the two sides of the same coin both are supplementary and complementary to each other. Teaching can supplement learning similarly learning effective learning can also facilitate the teaching effective teaching.

So, these are the both sides of the same things. So, in the next class we will discover further we will discuss further about the different modes of assessment summative, formative assessment etcetera in evaluation method. So, now, I am closing the session here. Thank you very much.