Outcome based Pedagogic Principles for Effective Teaching

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Lecture 07
Instructional Design for Active Learning (Cont.)

Good afternoon.

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In my last lecture I mention the ADDIE model whet is that ADDIE model but today I will explain the detail of ADDIE model.

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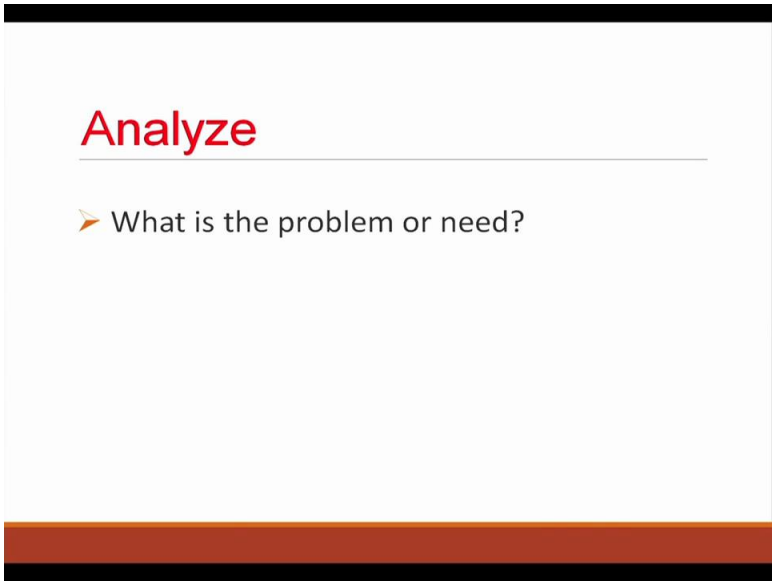

So, instructional design for active learning and I mainly cover ADDIE model and learning theory.

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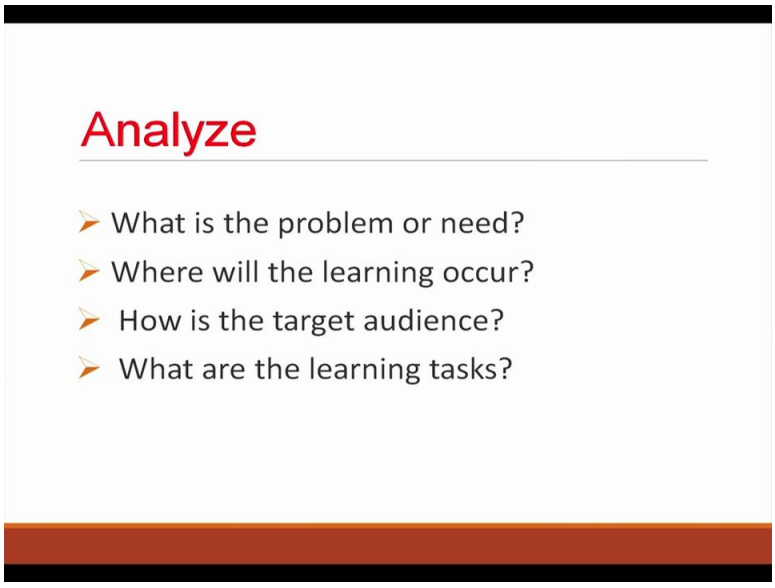

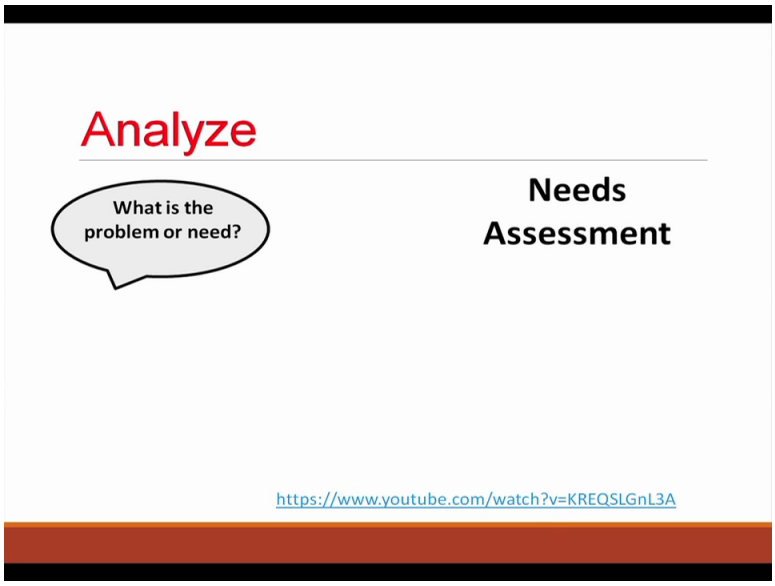

Now, in the ADDIE model the analyse A for analyse but what actually we analyse, okay. So, what is the problem or need that is very we have to find out. What is the problem or need that we have to analyse? Where will the learning occur? How is the target audience? What (is the) are the learning tasks and so, these all things we have to analyse. So, there E is what is the need you know that we have to find the need and we have to analyse the need then only we can give the instructional design.

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So, what is the problem or need or can this be solved without instruction? So, what is the need? Need is nothing but what we desire and what is happening. The difference between the desire and happening is called the need. So, there is for these need we have to analyse.

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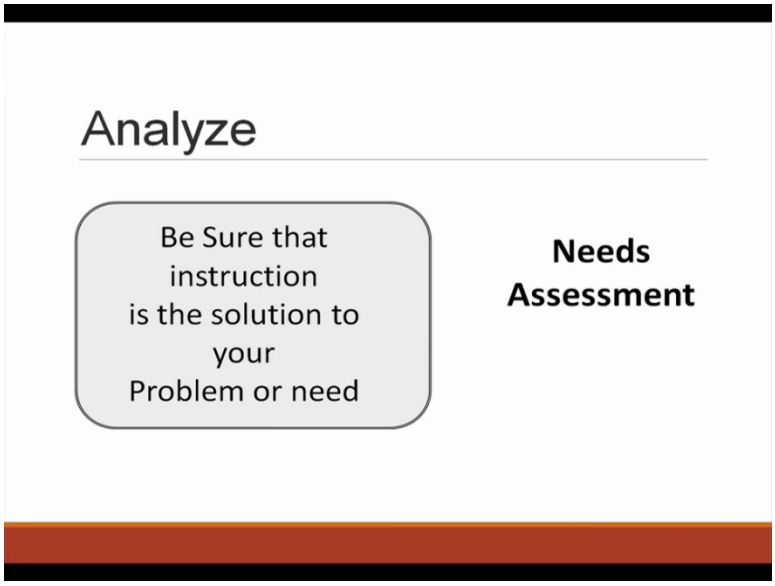

So, be sure that the instruction is the solution to your problem or need.

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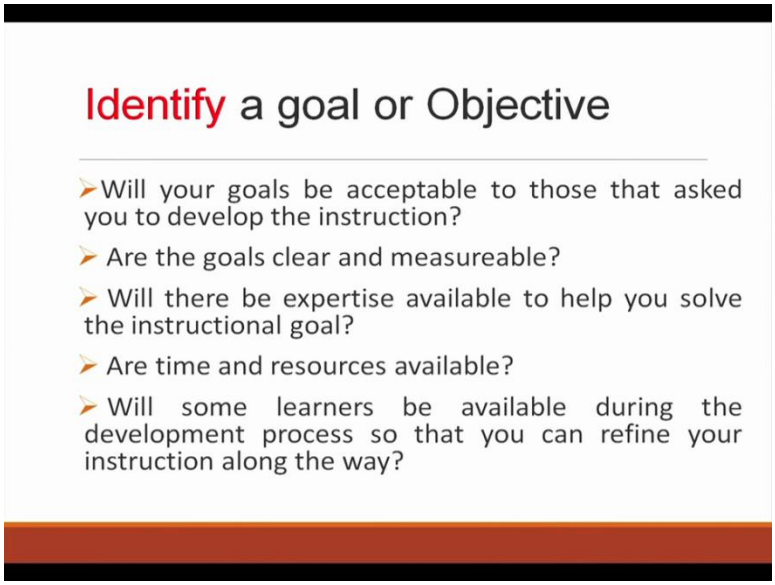

So, what is the need to the to (we have to solve the) we have to see that what the instruction we will give and whether it is solve the problem or not. So, we have to identify is the keyword in the instructional design and what you have to do we have to identify a goal or the objectives in that case identify will your goal be acceptable to those that asked you to develop the instruction. With will this that goal is acceptable so that we have to identify.

Are the goals are clear and measurable that we have to identify. Will there be any expertise available to help you solve the instructional goal that we have to identify? Are the time and resources available and will some learners be available during the development process so that you can refine your instruction along the way? So, all these things you know before going to the goal we have to identify those things.

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So, identifying the goal and the objectives are the goals acceptable? Are the goals measurable? Are you know is a expertise available or the time and resources or if the learners available? So, these things we have to identify. So, identify in the analysis things that identify is very important.

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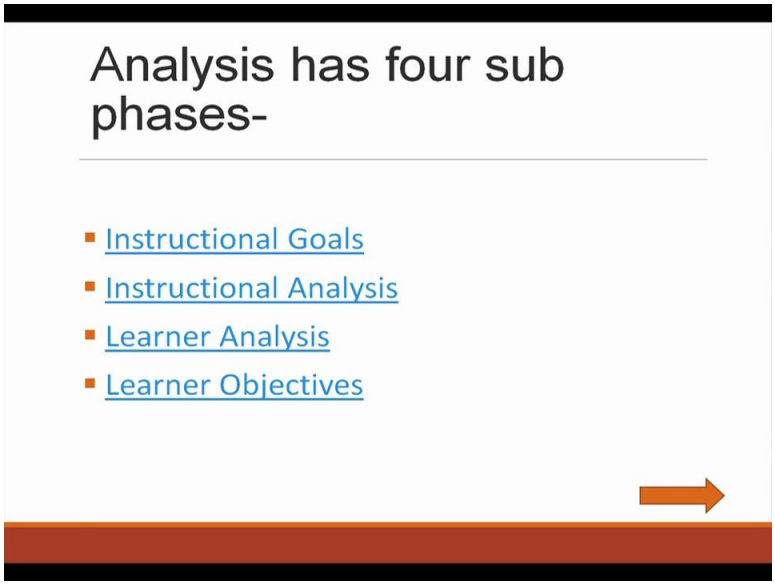

In that analyse analysis there are four sub phases-one is the instructional goal, instructional analysis, learner analysis and the learner objectives, so that the first if we the what is the instructional goal?

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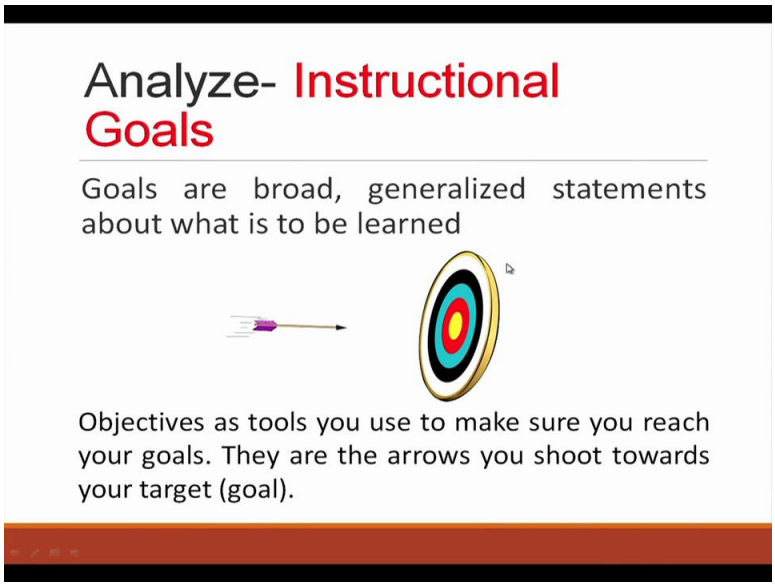

Here, goals are very broad, generalized statements about what is to be learned so that is the goal. To attain that goal objectives is nothing but tools right. Objectives as tools you can make sure that you want to go to that goal so that is the objective. So, the arrows here you shoot you know

towards your target that is the objective. So, what the analyse the instructional goal we have to analyse.

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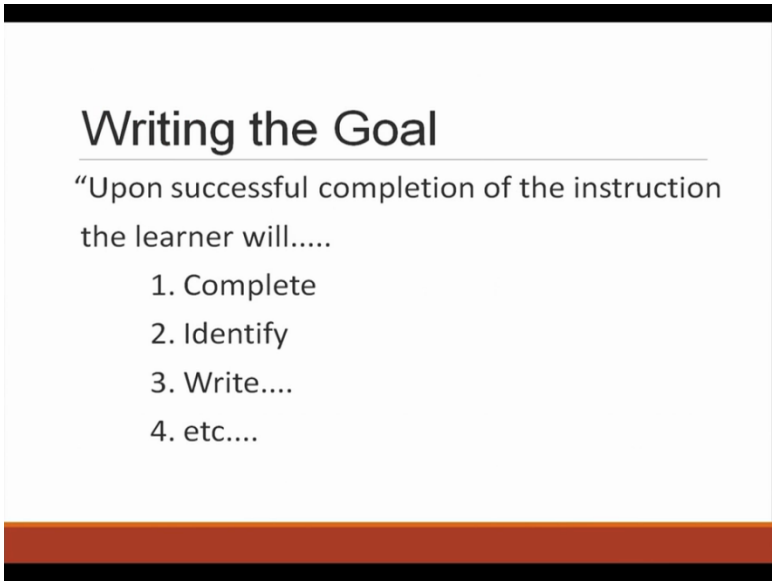

So, upon successful completion of the instruction the learner will complete something, identify the problem, write, these are the action verbs. So, in these ways we have to write the goal.

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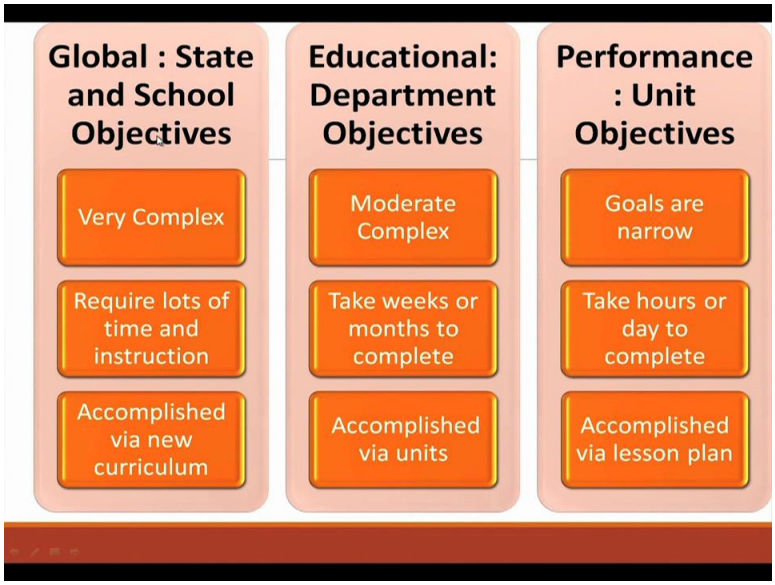

Here, in this picture, suppose different there their goals, their objectives are there very different suppose in the global, suppose schools and state . Here, the objectives is very complex in the schools or in the state, objectives are very, it is a complex. So, in that case you require lots of time and instruction and (you) it is accomplished you know via new curriculum but when it comes to from the global or the state to the educational or the department wise in that case the objective if this a moderate complex right.

So, we have to take suppose one week or you know that are month to complete the objective right, and a it is accomplished via small small units so there is a difference between that the state and the school objectives to the educational or the department wise objectives and in the case of the performance the unit objectives, it is the goals are very narrow, a small unit the goal should be very narrow.

So, you know two hours or you know three hours I need two day to complete the goal and not only that it is accomplished by you know via the lesson plan before starting the class I will just take okay, today I if I teach that this unit, in that case our objective will be very narrow our goal will be narrow but in the lesson plan I will in these things we will cover and (aft in) after one unit, the student will learn this.

So, if the objective is very clear to me, it is easy for the students also learn on their own or what I need that they can understand.

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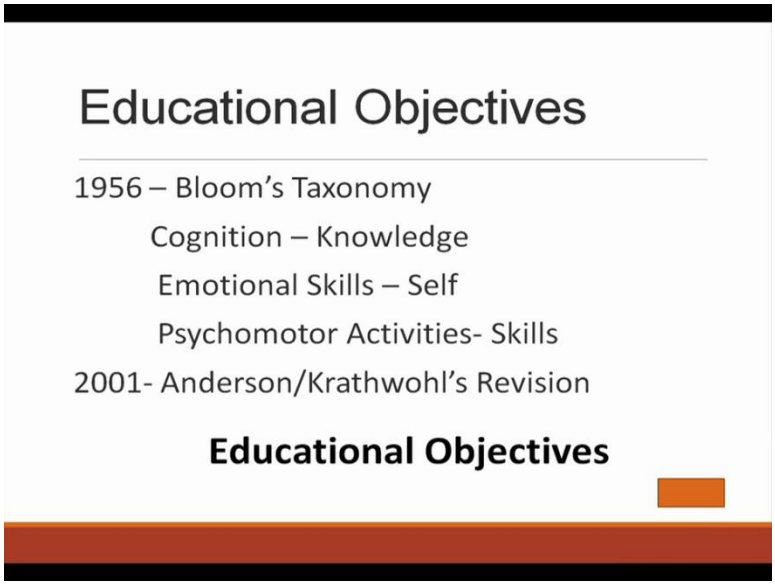

So, educational objectives in that case in the 1956 Blooms Taxonomy was discovered. So, he there the cognition things, (emo) emotional skills and the psychomotor activities were there. So, in the cognition it mainly to the knowledge, emotional mainly to the self and the psychomotor activities is the skills. I will explain this in my another lecture, okay.

So, in the 2001 Anderson/Karthwohl's revision. So, main we are talking about the educational objectives in the first think thing.

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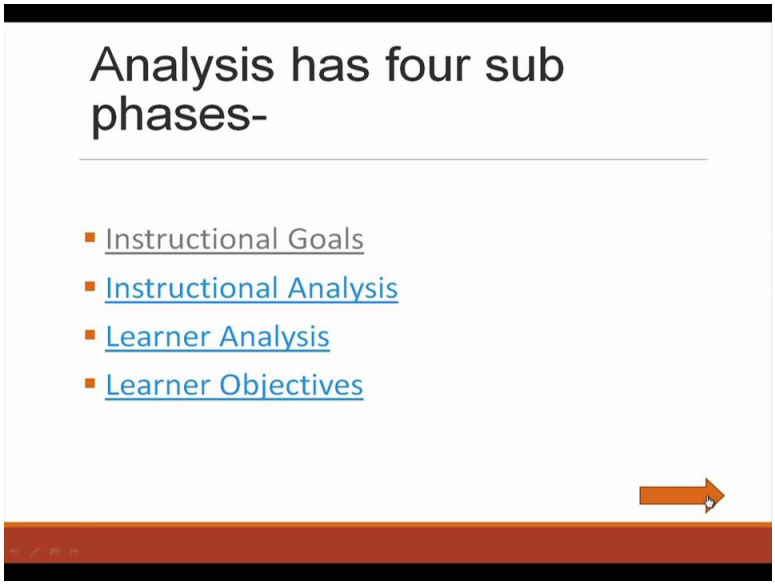

So, the firstly instructional goals if it is clear so on the and up to that the taxonomy and the instructional, educational objectives. So, next come to the instructional analysis for second point.

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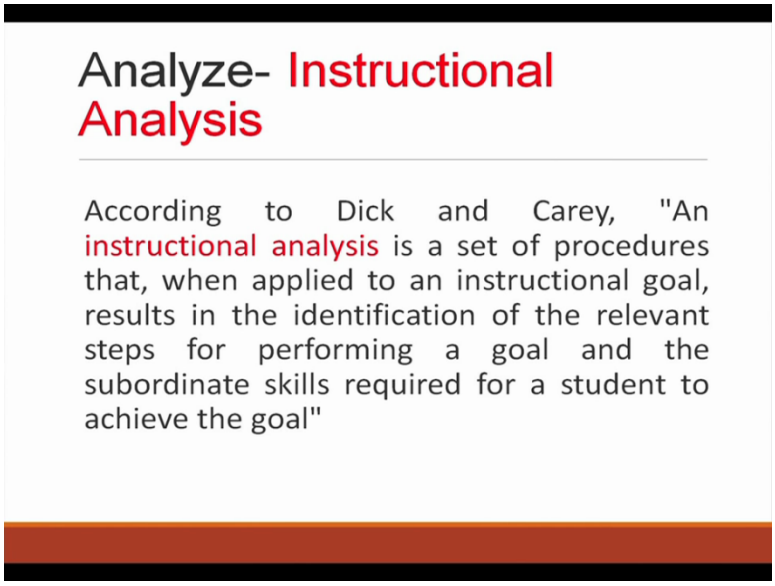

According to Dick and Carey, an instructional analysis is a set of procedures when applied to an instructional goal, when it the instructional goal is there so how we will analysis right, results in the identification of the relevant steps. So, what steps we will for performing the goal, to perform the goal what is the steps we will take and the subordinates skills, it require for a student to achieve that goal so that thing you know, this the instructional analysis.

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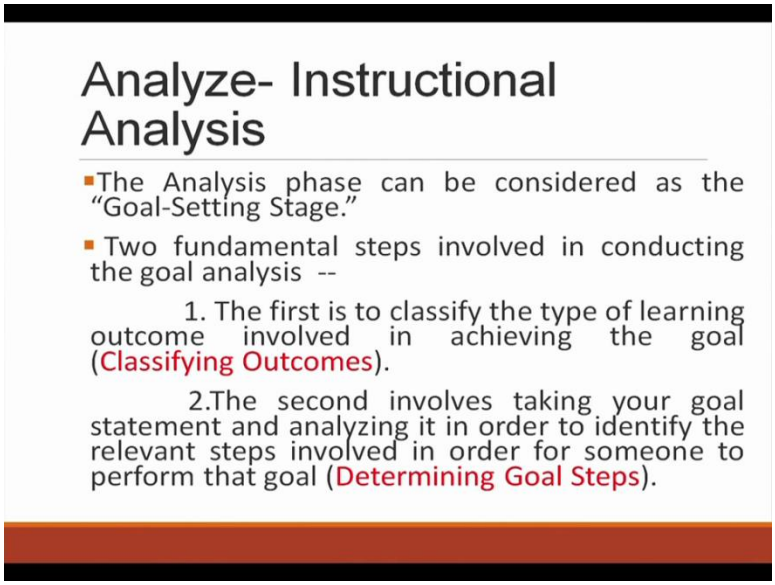

So, the analysis phase can be considered as the goal-setting stage, the goal is clear so we will the in that case two fundamental steps involved in the conducting the goal analysis. The one is the clarifying outcome what's that classify first clarify and then classify the outcomes that means the type of learning outcome involved in achieving the goal. This is the first okay, so the classifying the outcome and the second is the objective is taking your goal statement an analyzing in order to identify the relevant steps involved for someone to perform that goal that means the second one is the determining the goal steps.

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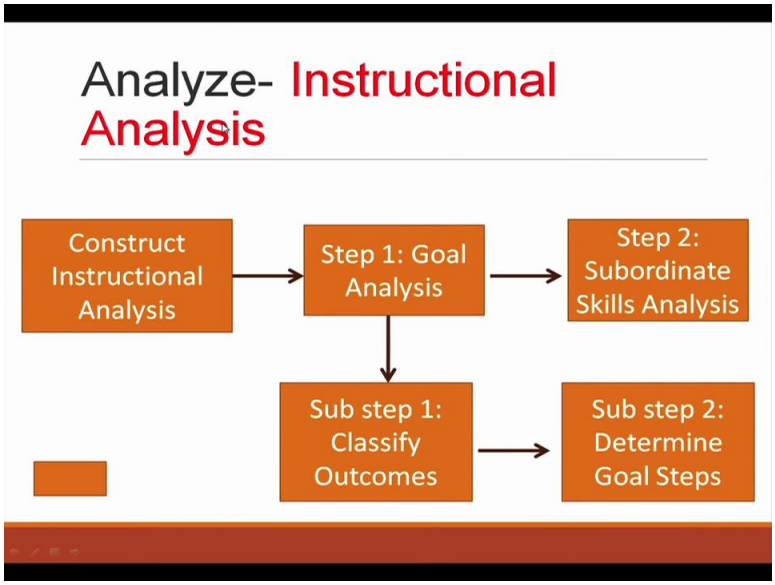

So, in that case in the picture you can see that the first one the in that construct instructional analysis. The step one is the goal analysis and this the step one the sub step one is the classify outcome what I mention and the sub step two is the determine the goal steps and here, if the goal analysis we will go to the step two that is the subordinate skill analysis, okay.

So, let us come to the instructional goals is clear, instructional analysis is clear. Now, the learner analysis and the learner objectives. So, in that analysis phases I already explain the instructional goals and the instructional analysis.

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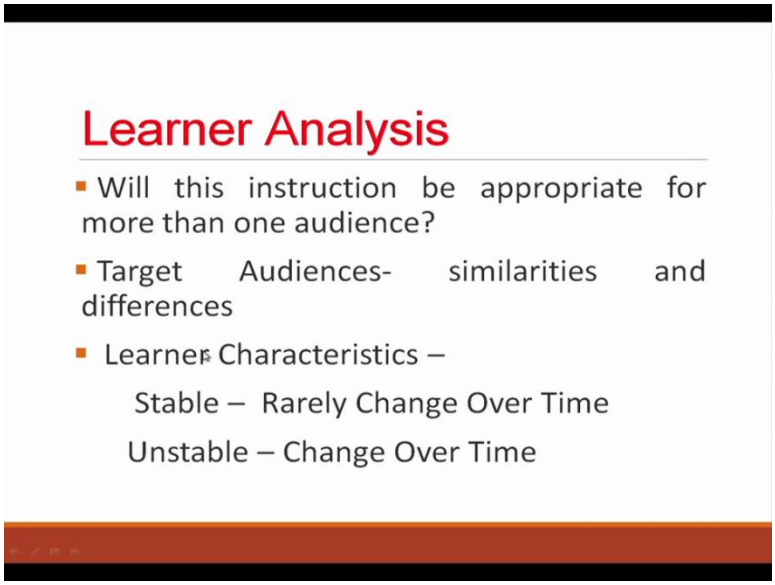

Now, we will come to the learner analysis. So, what is that learner analysis? First learner analysis first will it comes in a will the instruction is to be appropriate for more than one audience or the target audience what is the similarities and the differences between the target audience that we have to analyse right and then a the characteristics also, if the if is stable or they are unstable or the changes verb time or the stable means you know rarely change over time.

So, different types of learners so we should analyse it and they only we can give the instruction and the learner a learner approaches a different, learner styles are different.

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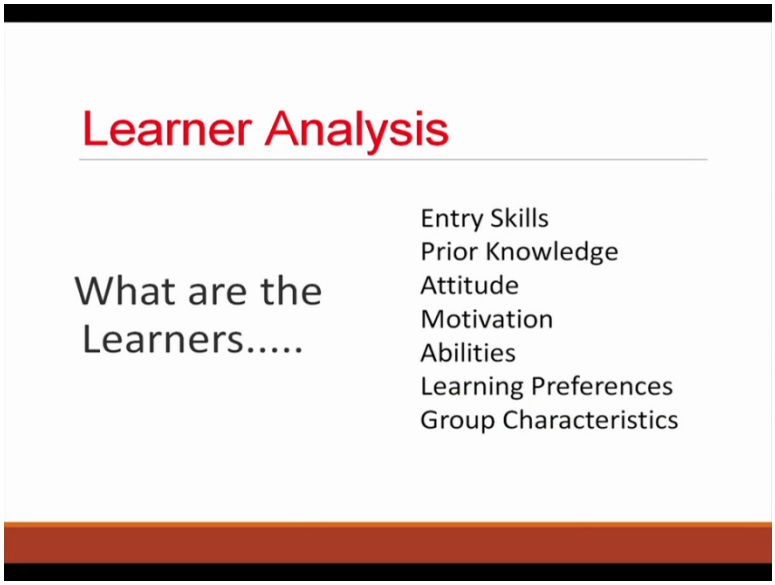

So, what are the learners main what is the entry skills, before coming to instruction what the entry skills that we have to analyse and then the if there any prior knowledge or not if they have prior knowledge that is another point. What is their attitude?

How are they or motivation, whether the learners have the motivation or not, you know if they do not have any motivation with the instruction also you cannot? So, that we have to analyse before starting your instructional design. Abilities, for that their abilities that we have to understand. Learning preferences, are they are visual learner? Are they are verbal learners? What is their learning preferences.

Group characteristics what type of the learner? What type of the group analysis? How they want to do? So, these things is very important when you start you know the learning analysis is very learner analysis is very important.

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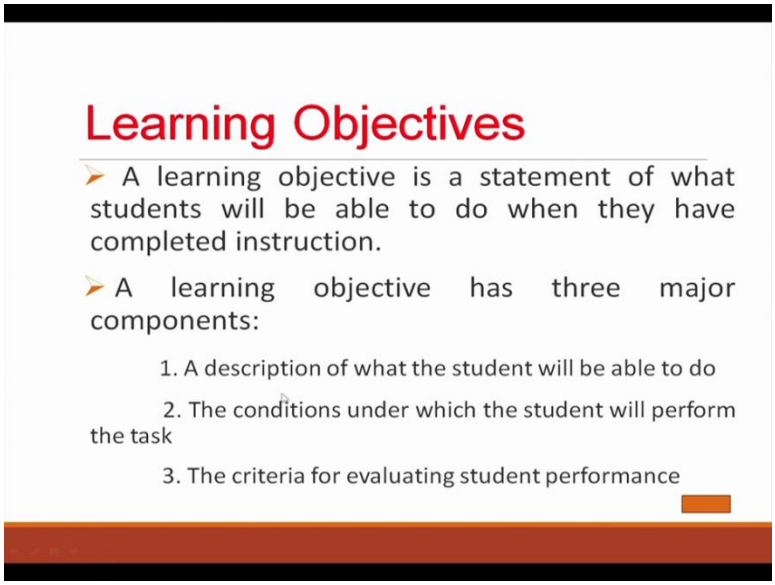

So, learner characteristics are the important aspects in the instructional design. The four major character categories of the learners. Characteristic is the cognitive that there is can be general, there can be the specific, there then the psychological, effective, social or the cognitive characteristics have three dimensions, okay. What is this you know not that the some dimensions the difference are there what is that? What is the similarities? What is differences you know in the are they changing or the stable?

The four dimensions in the cognitive charactostics each is different qualities and the implications for the instructional (dis) designers. So, the learner analysis is a important part in the analysis section. After analyzing the learner, the fourth point is the learners learning objective.

A learning objective is a statement of the (stu) what the student is wants to able to do and what they their skill set and what they have to complete after their instruction? What the learner can able to do? So, in that case the learning objective, it has three major components. What is that? A description of what the learner will do that is the performance component, right. Under what condition, the condition under which you know the student can perform their task so, that is the condition component. Up to what level that is the criterion component. So, these three parts are very important.

So, it is now it is clear that the analysis level has the four sub phases- instructional goals, instructional analysis, learner analysis and learner objectives.

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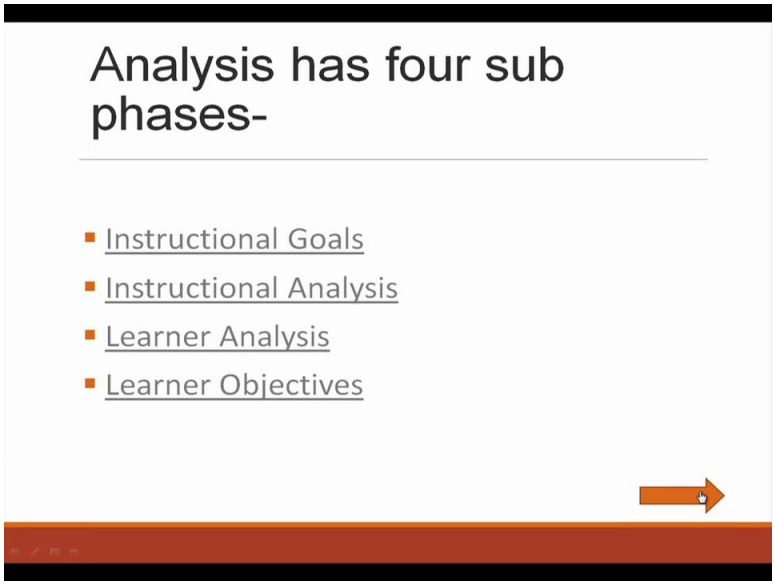

Now, the analyse phase is the foundation of all other phases in the instructional designs. So, first was we have to define the problem, identify the source of the problem and the determine the possible solutions. So, in that case the phase may includes specific research technique, suppose needs analysis right. What is the job analysis, task analysis?

Those things you have to, this is the important phase and the outputs of these phase, it often include, the instructional goals and a list of tasks to be instructed. So, these outputs will be the inputs in the design phase because in the instructional or if the after the analyse what is the output is there that is the in the design phase ADD that is the design phase that (out) the output is the inputs of the design phase.

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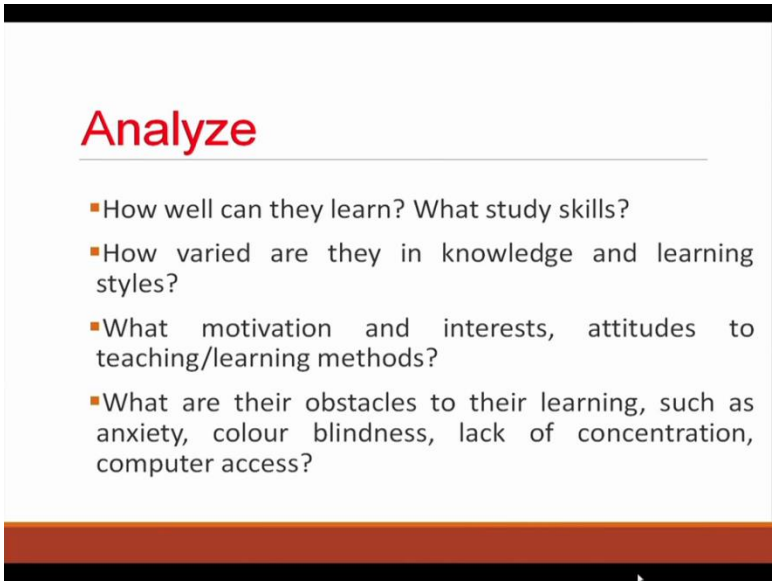

So, suppose the teacher want to understand the learner and thorough needs analysis the following information is very important your learners background what is their age, their education, their profession or their you know position (org) and their preferred learning styles and then their level of knowledge on that topic, their expectation from the training, so that is the what that expectation from the training? What relevant knowledge and skills do they need to learn and what do they already know? How will can they you know how well can they learn? You know what study skills or how varied are they in their knowledge and the learning styles because in the different learners are there.

What motivation and interest, attitudes to the teaching learning methods? What are the obstacles to their learning such as you know anxiety or their they have color and color blindness or not or the lack of concentration or the computer access whether they have any problem or these these things, first we have to analyse then only we can go to the design component, design part right. The design is how to teach right.

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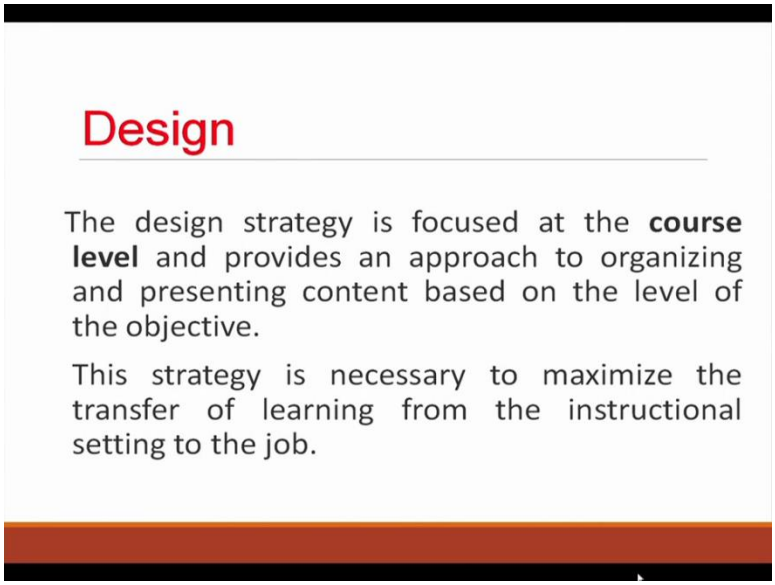

So, the stage determines all the goals, tools to be used to gauge the performance, various tests, subject matter analysis, planning and resources. So, the design thing so in that case in that the focus is on the learning objectives. The content, the subject matter analysis, exercise, lesson planning, assessment this is very important in the design steps. So, the design strategy is focused on the course level in the course level and it provides an approach to organizing and presenting the content based on the level of the objective. If the objective clear how to present that the design thing and the strategy is necessary to maximize the transfer of learning from the instructional setting to the job.

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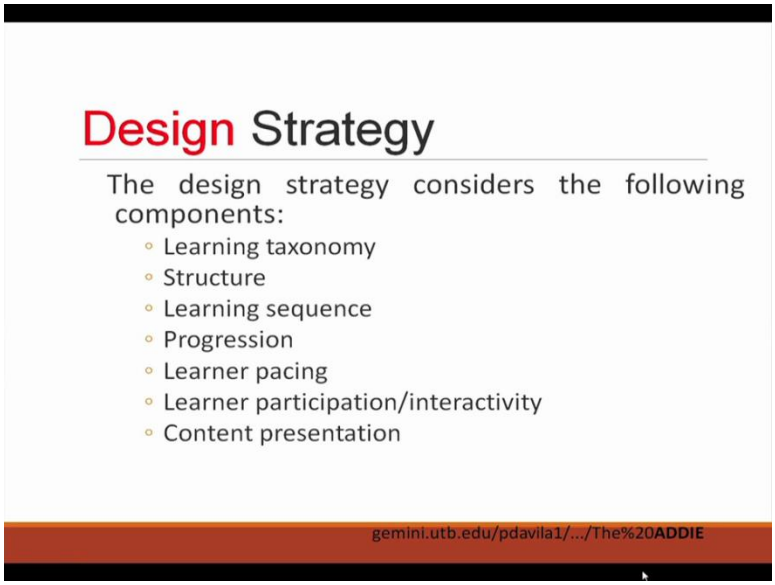

So, design strategy it considers the following components what are those? The learning taxonomy what taxonomy here, suppose the Bloom taxonomy or what is the structure? Learning sequence that if you under that in the what learning sequence that is important right to design. So, what is the progression, learner pacing, learner participation, interactivity, content presentation how we will present the content? What is the learner feedback that is very important and the supplemental information. All these things are important in the design thing.

Now, the third part if the design the develop. Develop means phase is addresses the tools to you to create the instructional material. In this process develop the producing the material needed to meet the goals and the objectives so that is how to develop it. In that case the phase is you know detailed plan want the list step by step, in this time this deadline we have to develop this course content.

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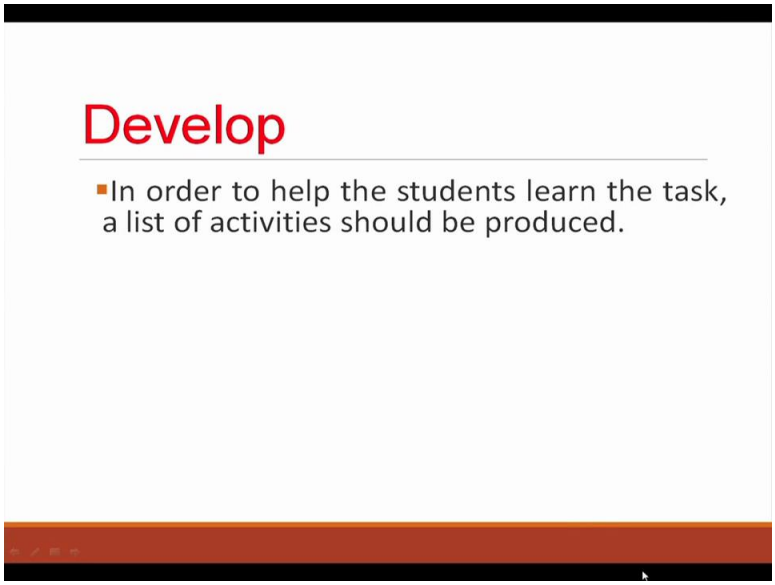

So, the develop phase is the important part in order to help the students to learn the task, a list of activity should be produced. So, the delivery method should be chosen, whether in the video or the power point or lecture notes or simply blackboard how we will develop that is important and it is important to the view the previous material so that the information is not repeated and lastly, develop the instructional course work. So, develop is the third important phase is in the ADDIE model.

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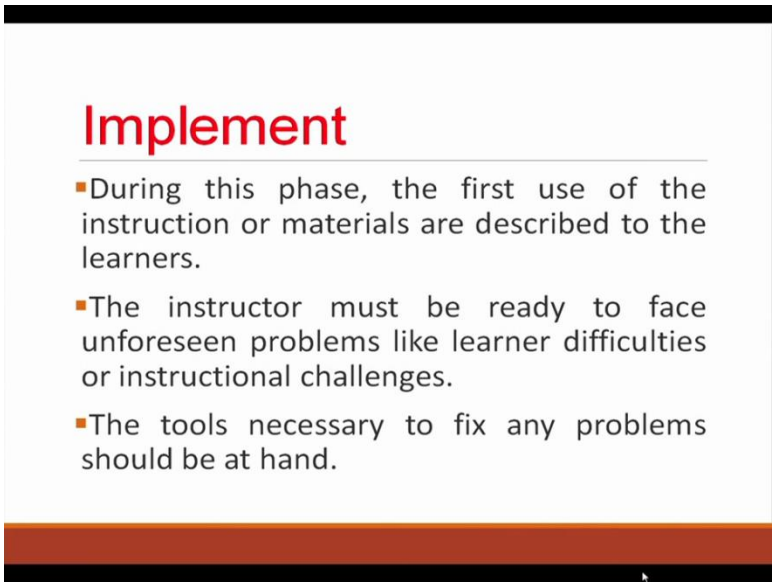

The fourth is now implement it. Implement during the phase, the first use of the instruction or materials are describe to the learner and then the instruction must be ready to you know face unforeseen problem. The learner difficulties or the instructional challenges and the tools necessary to fix any problems should be at hand.

So, implementation means the time line must be establish the final product must be delivered. So, once the final product is ready the learning environment must be prepared. So, the learners must be prepared, which includes advising students on requirements, all the tools to be used you know must be ready. So, after the development after analyzing it we have to design that after design we have to develop it and after develop that we have to implement it and after implementation the last one is the evaluation right.

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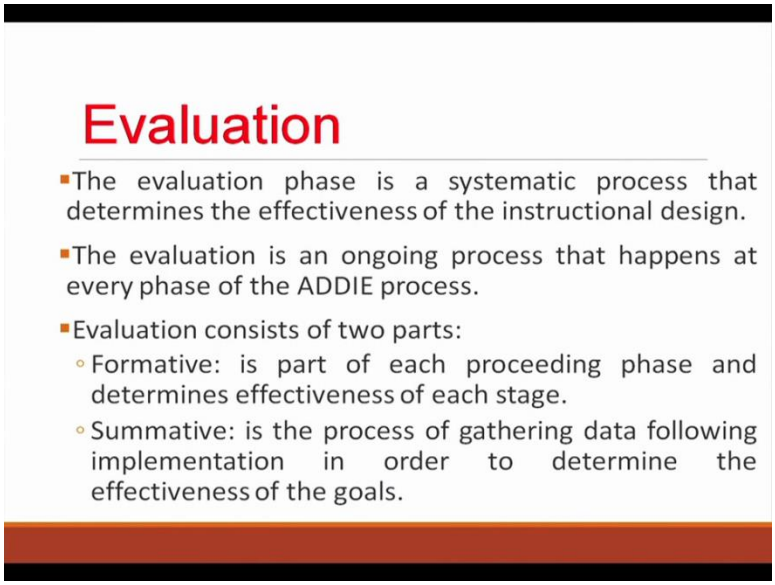

The evaluation process is the systematic process that determines the effectiveness of the instructional design. So, the evaluation is the ongoing process that happens at each phase (is the) in ADDIE model each phase you know we are but evaluation is the last one here, the two steps one is the formative evaluation and other is the summative evaluation.

Now, what that formalative evaluation each in each phase each class we are evaluating we are giving, asking them question, this a small small class test so, that is the formative but after doing the whole course we will give them to the total whenever that is the summative evaluation.

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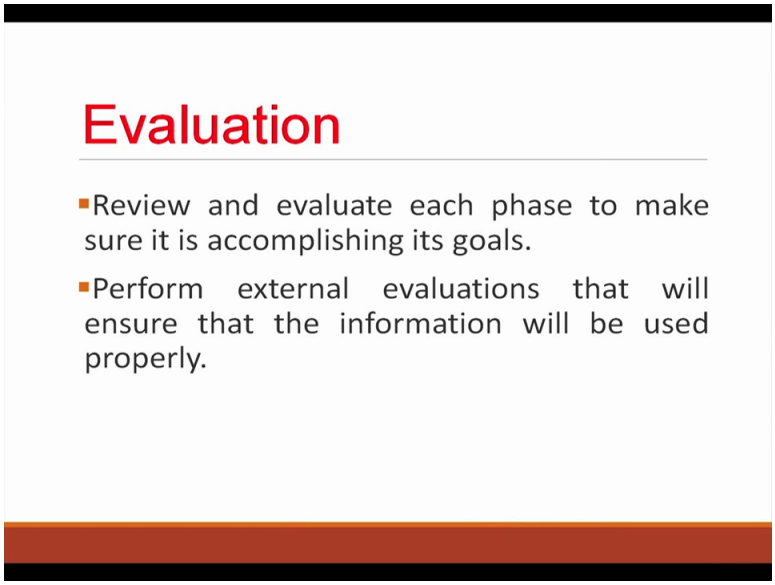

So, it is the process of gathering data following implementation in order to determine the effectiveness of the goal what the goal is there with it effective or not so, in the last the total the summative evaluation we will do. So, review and evaluate each phase to make sure it accomplishing the goal. So, perform external evaluations that will ensure that information will be used properly. Revise the training system in order to make it better. So, this is the evaluation part.

Now, let us come to the learning theory what is that instructional theories always pay play an important role into design the instructional materials.

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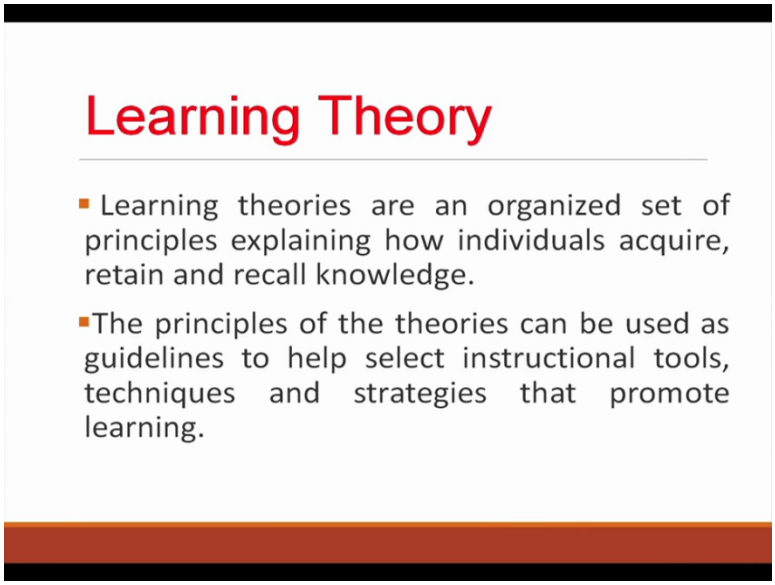

So, theories the behaviorism, constructivism, the social learning and cognitivism help to shape and define the outcome of instructional materials. Now, in the here learning theories are organized the set of principles explaining how individuals acquire, retain and recall knowledge. So, the principles of the theories can be used as guidelines to help select instructional tools, technique, strategies that promote learning but here, I will just explain was the behaviorism three, one is the behaviorism what is that (())(23:40).

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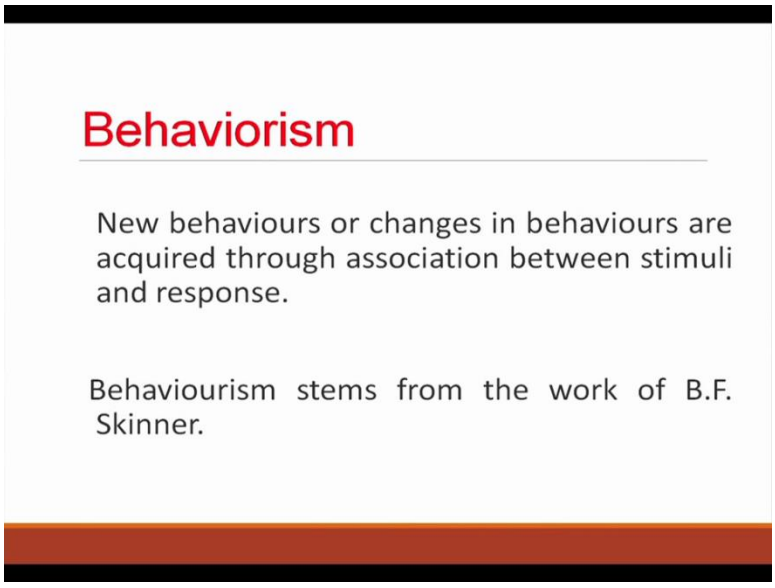

New behaviors or changes in behaviors are acquired through association between stimuli and response. It is develop name the work is B. F. skinner but behaviorism is that (believed) the behaviorism theory is the believe that, that knowledge exist in independently and outside the people. So, they view that the learner as a blank slate who must be provided from the experiences you will get.

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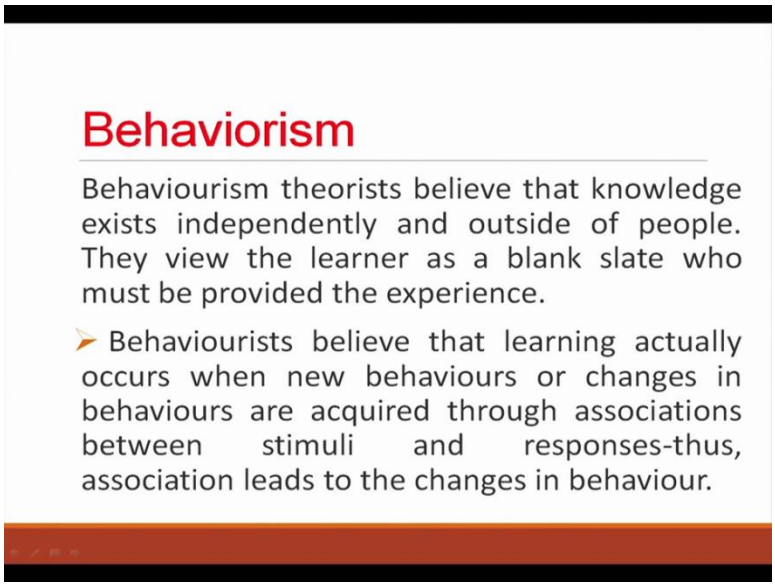

So, in that case, behavior is believe that learning actually occurs when new behavior or changes in behaviors are occurred through associations between the stimuli and response-thus, association leads to the changes in the behavior what is that, so that there just like a my blank slate so, in that case what the experiences they are learning.

So, the learning process is based on objectively observable change in behavior. So, in that case the theories the learning begins when cue or the stimulus from the environment is presented and the learner reacts and stimulus for some time or the response. So, the change in the behavior of the learner signifies that the learning has occurred.

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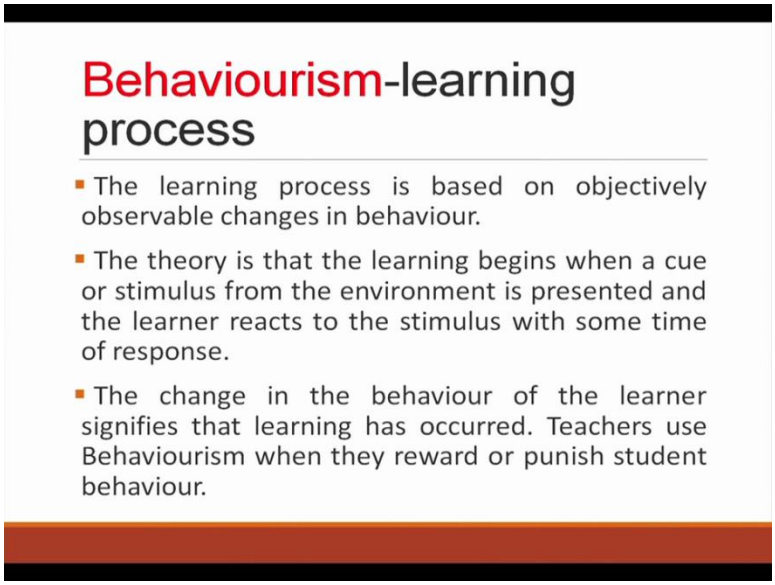

So, the teachers use the behaviorism when they you know if there you they reward them or the punish them you know from when from that reward and punishment they are learning. So, this is the behavior is concerned.

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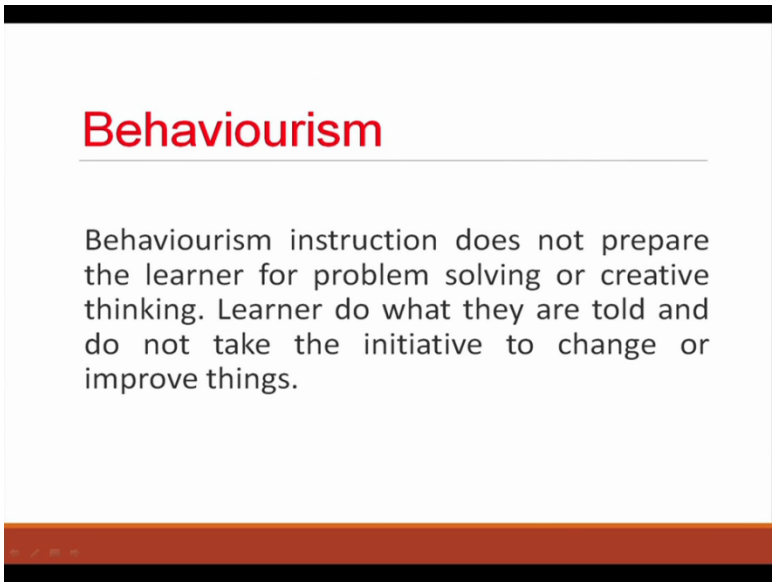

So, suppose the example is drill or rote work or you know repetitive practice from there you are learning or the bonus point if you do this you will get this much bonus point. So, we learning from that or if you say a good jobs, you know the it is a very good job the children okays

(())(26:02) good so they are doing this. So, in that case the these things is important. So, behavior instruction, it does not prepare the learner for problem solving or creative thinking. So, learner do what they are told and do not take the initiative to change or improve things.

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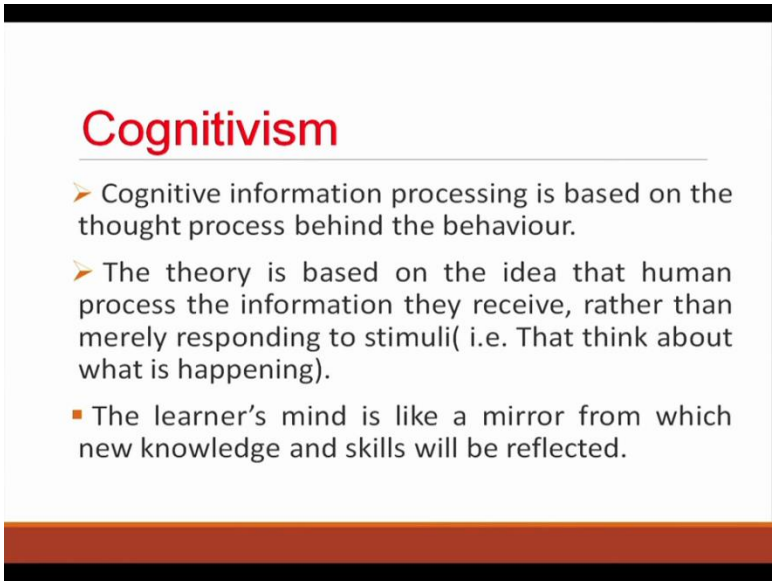

Thus, the after the behaviorism that the cognitivism what is that? They this is nothing but the process is based on the thought in the behind the behavior what is that the theory based on the idea that the human process the information what they receive, rather than merely the stimuli that is they think about what is happening, cognitively they are thinking it. So, in that case the learners mind is just like a mirror from which new knowledge and skills will be reflected. So, this is the cognitism cognitivism.

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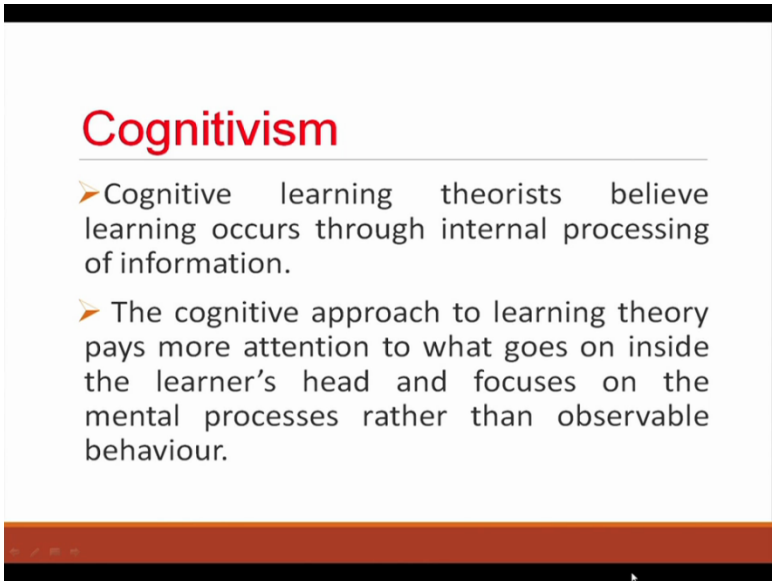

So, cognition information processing is used when the learner plays an active role, in seeking ways to and process information that he or she receives and related to already known and the and store within the memory. So, cognitive theory (())(27:31) by (())(27:33) and the cognitive learning theorists believe learning occurs through internal processing of information . So, the cognitive (info) approach is the learning theory pays more attention that what goes inside the learner's head that is important and focuses) where all the mental processes on the mental processes rather than the observable behavior.

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So, cognitivism is the learning involves the reorganization of the experiences either by attaining new incites or changing the old ones. Thus, learning is the nothing but the change in the knowledge which is stored in the memory and not just in the change in the behavior. So, that is the difference between the behaviorism and the cognitivism.

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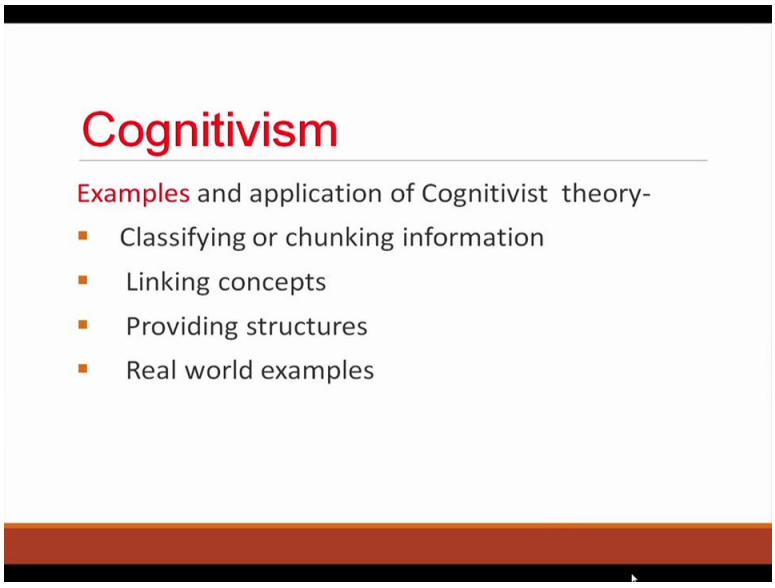

Some example , classifying or chunking information, in the cognitive thing you are thinking it and then you can classify it. So, not from the behavior you are learning. So, the linking concepts

if you if the concepts if you can link it or providing some structure or real world example, you are thinking then only you can give some real world example, so that is the cognitivism and problem solving, you know (the) that is very important in the cognitivism.

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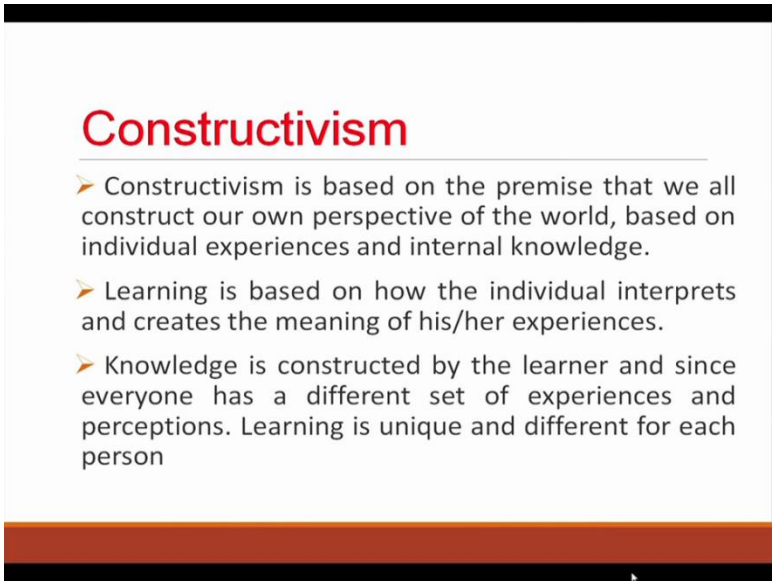

Now, the last one is the constructivism what is that? It is based on the that we all construct our own perspective in the world based on the individual experiences and the internal knowledge. So, learning is based on how individual interprets or the creates meaning of his and her experiences. So, knowledge which is constructed by the learner and since, everyone has the different experiences and you know perceptions. So, learning is a unit and different for each person.

So, in the constructivism the constructive theories believed that learning is a process where individuals construct new ideas if they construct new ideas or the new concepts based on their prior knowledge and their experiences. So, we resolve the conflict we in the constructivism we resolve the conflict between the ideas and reflect on the theoretical explanations and the theory is based, the theory is used to focus on preparing people in problem solve.

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So, the constructivism the example case studies different case studies and the views or the research projects you have to in the research projects you have to think after the research your conclusion so, that is the problem based learning. Suppose the active that collaborative learning, brainstorming, discovery learning these are the examples of the constructivism. So, these are the three learning theories, behaviorism, cognitivism and the constructivism. Thank you.