Neurolinguistic Programming
Dr. Smita Jha
Department of Humanities & Social Sciences
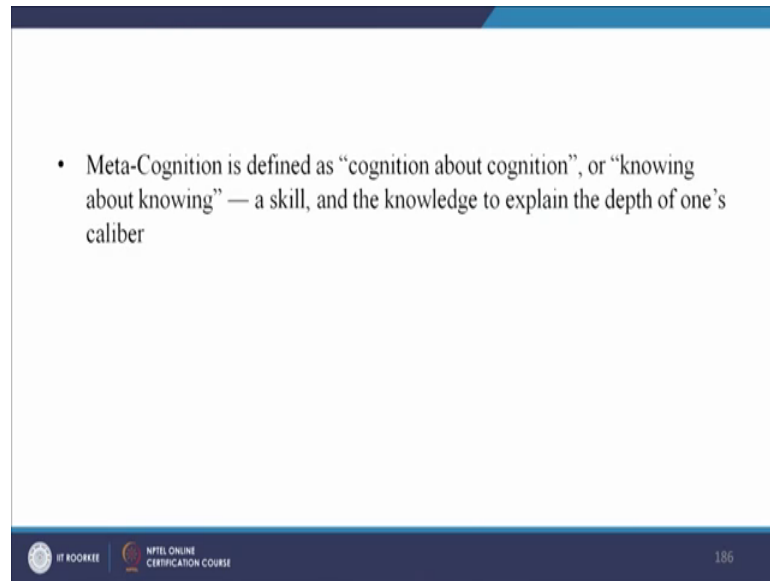**Indian Institute of Technology, Roorkee**

Lecture – 13
Metacognition

Hello friends today we are here to discuss Metacognition, one of the very important points while discussing Neurolinguistic Programming. So, while going ahead it is very important to know, what is metacognition? And what is the role of metacognition in neurolinguistic programming. How it is important, while discussing neurolinguistic programming.

In fact, it is really difficult to define metacognition sometime. Why because metacognition is simply defined as thinking about thinking, that is to say knowing your own wisdom or knowing your own potential or a caliber. The term metacognition has been part of neurolinguistic programming as a very concept of metacognition. Reflects on cognitive experiences cognitive experience means your brain functioning.

So, the very subject of metacognition is highly debatable regarding it is subject matter, because it is related to psychology. Metacognition is defined as cognition about cognition or knowing about knowing a skill and the knowledge to explain the depth of one's caliber.
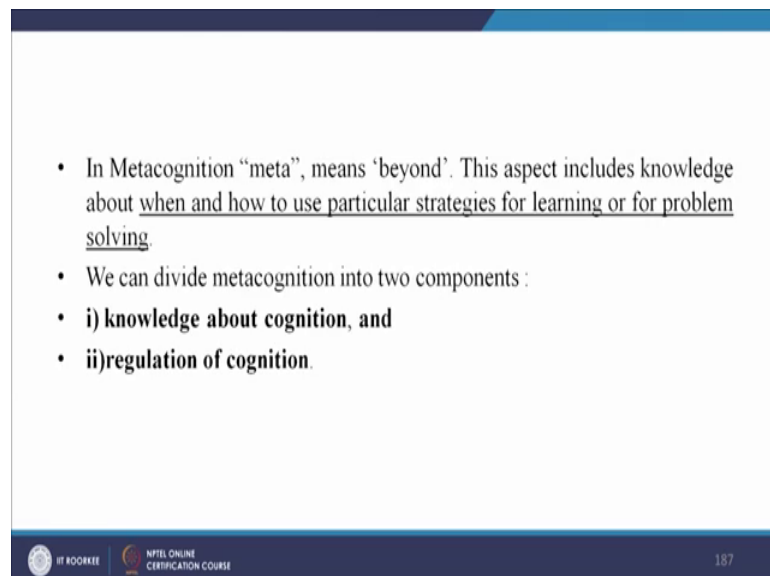
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Means my caliber how I am going to deal with a particular situation maybe that is my potential to explore myself and in that case we may say that to some extent it is metacognition.

Now in metacognition "meta", means 'beyond'. This aspect includes knowledge about when and how to use particular strategies for learning or for problem solving. Now what are these problems? We can divide metacognition into 2 components if we talk about problem. The first is knowledge about cognition.

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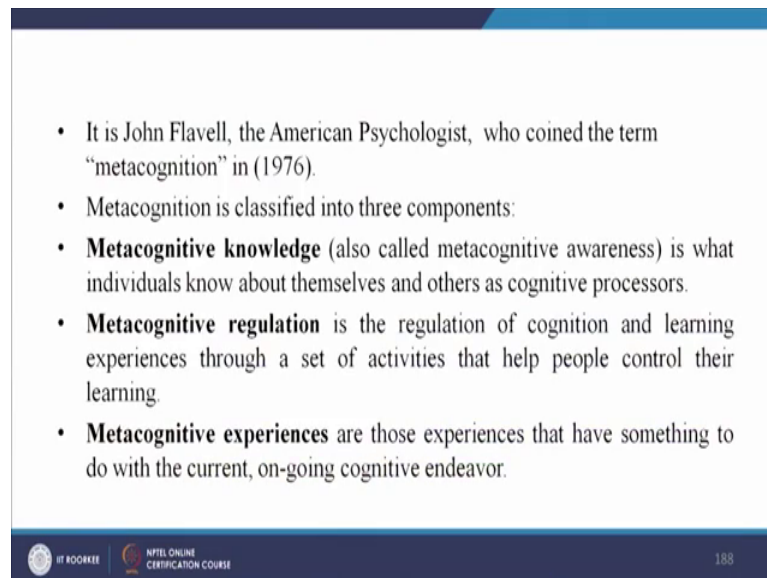
And the second is regulation of cognition.

Now, knowledge about cognition what is this I mean knowledge about cognition how would you explain it? This is about your own caliber; this is about your own thinking. Now it is John Flavell, the American psychologist who coined the term metacognition in 1976. And metacognition is classified into 3 components, the first is metacognitive knowledge also called metacognitive awareness and it is what individuals know about themselves and others as cognitive process processors.

Second is metacognitive regulation. It is the regulation of cognition and learning experiences through a set of activities that help people control their own learning.

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- It is John Flavell, the American Psychologist, who coined the term "metacognition" in (1976).
- Metacognition is classified into three components:
- **Metacognitive knowledge** (also called metacognitive awareness) is what individuals know about themselves and others as cognitive processors.
- **Metacognitive regulation** is the regulation of cognition and learning experiences through a set of activities that help people control their learning.
- **Metacognitive experiences** are those experiences that have something to do with the current, on-going cognitive endeavor.
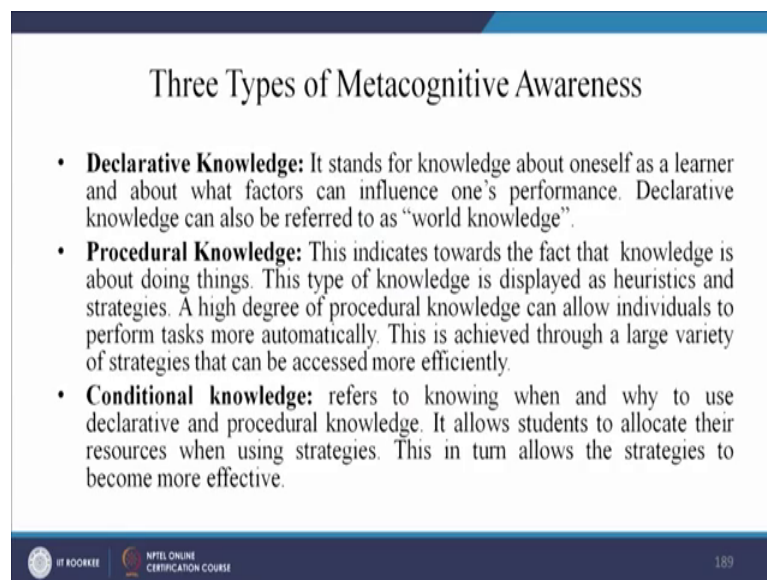
Third metacognitive experiences are those experiences that have something to do with the current, ongoing, cognitive endeavor? Now, 3 types of metacognitive awareness, declarative knowledge what is declarative knowledge? It stands for knowledge about oneself as a learner and about what factors can influence ones performance.
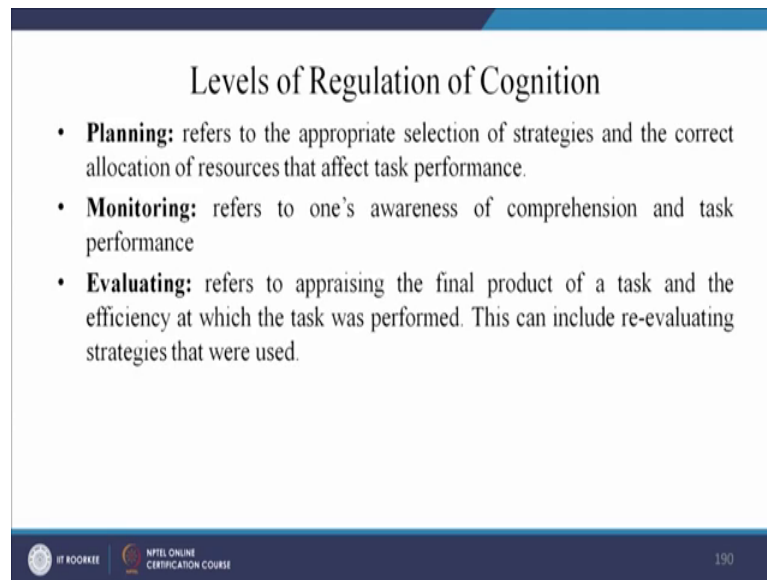
Declarative knowledge can also be referred to as world knowledge. So, this is about declarative knowledge means, know knowledge about oneself as learner. Second is procedural knowledge. This indicates towards the fact that knowledge is about doing things. This type of knowledge is displayed as heuristics and strategy heuristic strategies

a high degree of procedural knowledge can allow individuals to perform task more automatically.

Now this is achieved through a large variety of strategies that can be accessed more efficiently. Third is conditional knowledge which refers to knowing when and why to use declarative and procedural knowledge.

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It allows students to allocate their resources when using a strategies? So, this in turn allows the strategies to become more effective, now levels of regulation of cognition, because knowledge of cognition and regulation of cognition the 2 aspects of metacognition.

Now, what are the levels of regulation of cognition first is planning, which refers to the appropriate selection of a strategies.

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And the correct allocation of resources that effect task performance, monitoring refers to ones awareness of comprehension and task performance and this is the second level of regulation of cognition. The third level of regulation of cognition is evaluating and which refers to appraising the final product of a task and the efficiency at which the task was performed.

This can include reevaluating a, strategies that were used. Now in the words of Taylor 1999 metacognition is an appreciation of what one already knows? Together with a correct apprehension of the learning task and what knowledge and skills it requires combined with the agility to make correct inferences about how to apply ones strategic knowledge, to a particular situation and to do so efficiently and reliably.

Now, according to some psychologist metacognition is referred to as ones inner language or as thinking about one's own thinking or metacognition refers to an individual's self-knowledge about their cognition, as well as to the ability to be able to influence one's own cognition. Research on metacognition has a strong possibilities and opportunities to influence or understanding of learning strategies for student's means for the learners with learning disabilities.

A strategy is a systematic thought or approach, which allows us to get from 0.1 to another. And metacognition is a kind of a strategy, which will give you this power to

point out or to explore the faculty, the power in within you to apply on a particular task that is metacognition.

Now the goal of a strategy is to teach students how to become purposeful effective independent learners? This is the goal of metacognition, because when we give training of NLP to the students, we try to bring out the best out of that student.

Now, metacognition is one of the strategies to handle one of the important potential powers to handle the situation. Now self-assessment and self-monitoring are thought to enhance a strategic functioning. So, when we talk of metacognition these 2 part self-assessment, how much wisdom you have? What is the caliber? And self-monitoring, when you are pursuing a task? Where you are? What you are doing? So, self-monitoring are thought to enhance a strategic functioning.

Metacognitive a, strategy training should be incorporated into the regular language teaching program to help a students, to making the learning process more effective. When we talk of metacognition or neurolinguistic programming it is more or less personality development enhancing your personality. And when we talk of personality enhancement it is communication and it is effective communication.

Now metacognition is one of the, a strategies to help the learners to learn the better way how to go for effective communication? Among the various cognitive systems and cognitive structures one of them happens to be the system of language, and it is one of the many systems entering into an array of interconnected cognitive structure. So, language means not only the verbal language, cognitive language, your nonverbal language.
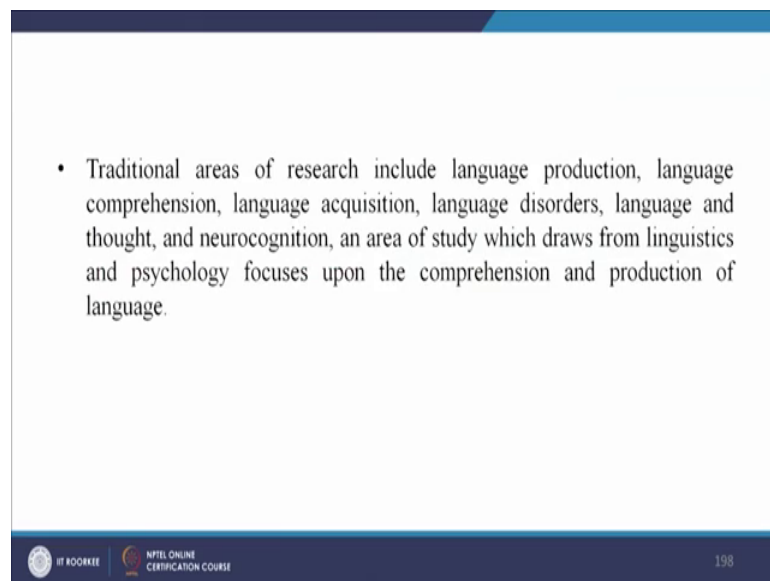
So, how you perceive people that how he or she thinks what is there in the mind? So, language is also one of the systems that take place in the mind only. We all know I mean linguistically that language has again 2 fold that is the abstract language and the concrete language.

So, abstract is, was they already in the mind and we use as per the context. How to use it as per the context that is the contextual communication very important and metacognition is the, a kind of a strategy, which help us to decide that how to use that contextual language or communication.

Language is a part of mental organ we all know I mean this is what I said that abstract and the concrete the abstract is always there in your mind and concrete that we actually use. So, a study of the mental process in is involved in the comprehension, production, acquisition of language. And a number of psychologies a psycho linguistics, work has been devoted to the learning of language, by children, and on speech processing co and comprehension by both children and adults.

Traditional areas of research include language production, language comprehension, language acquisition, language disorder, language and thought and Neuro cognition an area of study, which draws from linguistics and psychology focuses upon the comprehension and production of language and comprising the very part of neurolinguistic programming.

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As a result psycho linguists who have a background of training in both linguistics and psychology have been attempting. Since early 1960s to gain a better understanding of how the abstract rules, which determine human language are acquired and used to communicate appropriately created meaningful messages from one person to another via the vocal auditory medium.

Research has been directed to the evolutionary development of language, the biological basis of language, the nature of the sound system, the rules of syntax, the nature of meaning and the process of language acquisition. A study of innate behavior approach to

learn language is metacognition. Now aspects of metacognition, because we were talking about the various strategies of metacognition; metacognition is a kind of a strategy. So, what are the aspects?
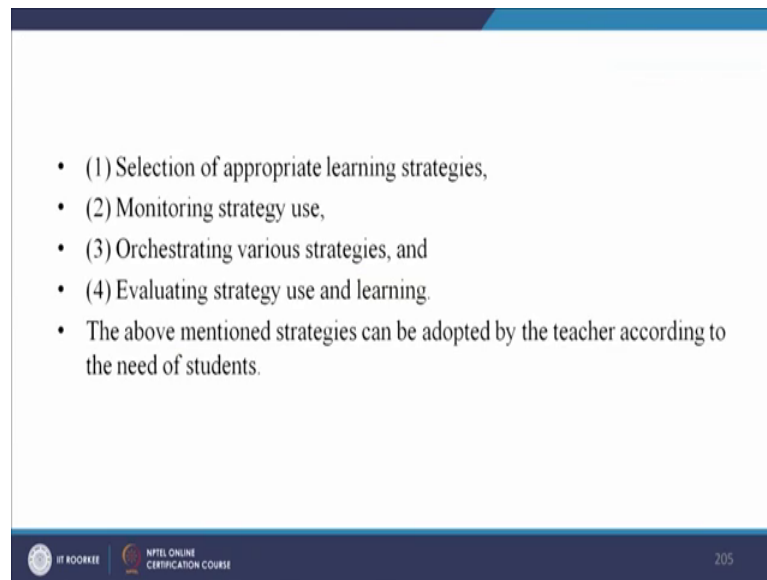
Now, there are 3 important aspects of metacognition. The first is self-awareness, the second is languages are acquired and third is preparation and planning for effective learning. So, the first is self awareness and this particular stage refers to no one's learning style. When a learner knows their individual learning style they can take measures, which will enable them to process the information more efficiently. If a student knows that they have lose concentration or memory is weak he or she will also be aware of how to develop this by note taking and studying the notes.

The second step explains more about how languages are acquired. Language acquisition is a delicate process that involves both knowing information and knowing how to utilize it? If students believe that by merely attending classes they will learn the language, it stands to reason that they will not reach their objective, but if the students are aware of the fact that it is necessary to participate actively in the class to get involved and take part in every activity. They will have a greater chance of being effective and successful.

The third and the final step is the stage of preparation and planning for effective learning. The setting of learning goals is rather crucial, because learners will attain the very objective more easily, if they have clearly stated what these are? Now looking these 3 aspects of metacognitive learning, we can analyze it further dividing into 4 important segments what are these segments?

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First selection of appropriate learning strategies knowing your limitations, try to find out which one is more appropriate, while learning a particular task monitoring a strategy use.

While selecting one strategies or applying it while learning a task try to monitor it, is it fruitful is it useful while pursuing a task. Orchestrating various strategies and evaluating a strategy use and learning. Now the above mentioned a strategies, I mean all these a strategies can be adopted by the trainer according to the need of the student.

For example, somebody needs monitoring a strategy use, somebody needs orchestrating various strategy. Now selection of appropriate learning a strategy a student can assume or a learner can assume that he she actually wants, while learning language what she actually want?

The trainer can promote this reflection by being explicit about the particular learning goals; they have set for the class and guiding the students in setting their own learning goals. If the goal is clearly articulated it will be easier for the learners to measure their progress. And the trainer might set a goal for the students of getting command over the vocabulary from a particular chapter in the textbook. Now, a student to make set a goal for himself or being able to answer the comprehension questions at the end of the chapter.

Now, researchers have suggested that teaching readers how to use a specific reading a strategy is a prime consideration, in the reading classroom, the metacognitive ability to select and use particular strategy in a given context for a specific purpose means that the learner can think and make conscious decisions about the learning process. Now to be effective a metacognitive instructions should explicitly teach a students a variety of learning strategies.

And also when to use them? This is very important for a trainer as well as a student. One possible a strategy is word analysis. Now for example, dividing the word into it is prefix and the stem another possible strategy is the use of context clues to help guess the meaning of a word, but a student must receive explicit instruction in how to use these strategies and they need to know that no single strategy will work in every instance. Teachers or trainer should show them how to choose the strategy that has the best chance of success in a given situation.

Next is monitoring a strategy use, by monitoring their use of learning a, strategies a students or the learners feel better to keep themselves on track to meet their learning goal. Once they have selected and begin to implement a, specific strategies, they need to ask themselves periodically whether or not they are still using those strategies as intended. Now for example, students may be taught that an effective writing a strategy involve thinking about their audience and their purpose in writing that is to explain to persuade.

Now students can be taught that to monitor their use of a strategy they should pause occasionally, while writing to ask themselves questions about what they are doing? Such as whether or not they are providing, the right amount of background, information for their intended audience and whether the examples, they are using are effective in supporting their purpose. Orchestrating various strategies, while learning language I mean this is the third level, while learning language a learner has to face various difficulties.

Now to cope with these one has to apply various theories which are the combination of a strategy. This theory is called orchestrating various strategies that is the use of more than one strategy. This method is an important metacognitive skill the ability to coordinate organize and make association among the various strategies available, is a major
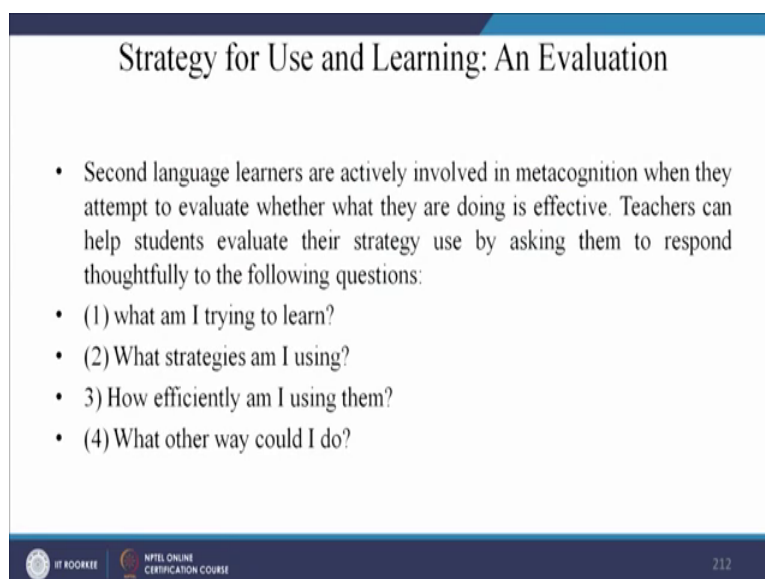
distinction between a strong and weak I mean second language learner or or anything that you are trying to learn.

Now the trainer can assist students by making them aware or alert of multiple strategies available to them. For example, by training them how to use both word analysis and context, clues to determine the meaning of an unfamiliar word. That is this, the pragmatic aspect of learning language.

Now the teacher also needs to show students how to recognize? When one strategy is not working and how to move on to another? This is very important where a learner is faulty. For example, a student may try to use word analysis to determine the meaning of the word antimony, having recognized anti as a prefix meaning against, but that strategy that strategy would not work in this instance.

Anti is not a prefix here antimony is a metallic chemical element that has nothing to do with being against or opposed to something. So, when the student finds the word analysis does not help her figure out what this word means she needs to know how to turn to other strategies such as context clues to help her to understand the word now next a strategy for use and learning and evaluation. So, we are discussing like I mean pursuing or learning this, the foreign language. So, second language learners are actively involved in metacognition, when they attempt to evaluate, whether what they are doing is effective?

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Strategy for Use and Learning: An Evaluation

- Second language learners are actively involved in metacognition when they attempt to evaluate whether what they are doing is effective. Teachers can help students evaluate their strategy use by asking them to respond thoughtfully to the following questions:
- (1) what am I trying to learn?
- (2) What strategies am I using?
- 3) How efficiently am I using them?
- (4) What other way could I do?

Teachers or trainer can help the student evaluate their a strategy use by asking them to respond thoughtfully to this these questions. What am I trying to learn? What strategies am I using? How efficiently am I using them? What other way could I do? So, these are the pertinent questions to know the effective way to learn while responding to these 4 questions a student gets reflection of all the previous aspects of metacognition.

Allowing the second language learner to reflect through the cycle of learning, a preparing and planning relates to identifying what is to be accomplished? While selecting and using particular a strategies relate to the question of which strategies are being used?

Now, for example, while teaching their specific reading skill of main idea comprehension, the teacher can help their students evaluating there a strategy use by using the 4 questions. First focusing on the main idea of the text the teacher can motivate their student to find out the real task or the understanding of the text clearly, planning to explore the main idea the teacher can persuade the readers to know the acquired planning and to identify the main idea knowing and purposefulness of the a strategy.

Now research shows that learners whose skills or knowledge basis are weak in a particular area tend to overestimate their ability in that particular area. Now in other words they do not know enough to recognize that they lack sufficient knowledge for accurate self-assessment. In contrast learners whose knowledge or skills are a strong may underestimate their ability. Now these high ability learners do not recognize the extent of their knowledge or skills.

Now, Krueger and Danny's research also show that it is possible to teach learner at all ability levels to assess their own performance more accurately. So, the interaction of metacognitive skills learning languages and individual task also and it varies from person to person. At the same time metacognition is not a linear process that moves from preparing and planning to evaluating. More than one metacognitive process may be occurring at a time during a second language learning task and these highlights once again how the orchestration of various strategy is a vital component of second language learning.

Similarly, maintaining motivation to see a task to completion is also a metacognitive skill. The ability to become aware of distracting stimuli both internal and external and sustained effort over time also involves metacognitive or executive functions. So, the

theory that metacognition has a critical role to play in successful learning means it is important that it be demonstrated by both students and teacher.

So, students we have seen that how metacognition is important, because neurolinguistic programming gives you a power to assess yourself. Why assessing yourself to get the best out of your potentials. Now metacognition is one of the power to get out the best potentials. We have discussed while discussing neurolinguistic programming that how to use resources. For that flexibility is required, while pursuit persuading a task may be that we fail and that particular strategy through which we are pursuing a particular program may not click.

Now, in that direction or in that situation what else could be done? If you are flexible if you know how to exploit other resources, you go for other resource and apply it the strategy and if the work is done you will get success. So, metacognition is very important to assess yourself. To know your limitations as well as your plus point and you can do that whether through introspection, through practicing, through discussion and through other things.

So, once you know yourself once you can locate your lacunae or limitations you can go for other resources other strategy that may lead you to the path of success. In that way metacognition is a very very important part of neurolinguistic programming as well as for those who are learning new thing?

I have given you the example of second language learning or any foreign languages. Even for that you need a kind of motivation. So, how to persuade yourself to learn a foreign language you need to apply various theories or various strategy, that is why I mentioned orchestration. Orchestration theory means as there are wide's in orchestra and the wide to a particular context.

Similarly the qualities which you have and which quality is useful for a particular context with these words I would like to conclude and try to understand metacognition, with the help of knowing yourself and with the help of trying doing effort. That is the best way to know yourself keep on doing efforts to move ahead in the life and you will know yourself better.

Thank you.