

**Interpersonal Skills**  
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**Lecture-16**  
**Creative Problem Solving Continued**

Hi friends again I am here to discuss interpersonal skill with creative problem-solving attitude. And we have discussed that what is creativity, what is problem and what are the ways to solve and many traits and characteristic also while solving the problem. And the last point I discussed is regarding the cognitive intelligence, then education experience, emotional intelligence, flexibility, decisiveness all other.

Let us discuss again in length the creative problem-solving, that is in other word you can see creativity in problem-solving. So you are aware of a problem or create one of your own, you identify causes of the problem, you find creative alternatives, you weigh the alternatives, you make the choice, you implement the choice, you evaluate whether you have made a sound choice or not.

If your choice was unsound you are faced with a new problem and the cycle repeats itself, that is to say that problem invites problem. So you need to be very careful and that is why it is very important to identify the cause of the problem, that is the root cause of the problem. And if you get the root cause of the problem I am sure that you will get solution also. And for solution you have to apply various strategy and here works the cognitive intelligence, cognitive education, that is your mind the creativity of your mind.

Creativity is the ability to look for good ideas that can be put into action, adaptive creativity involves improving an existing system whereas innovative creativity involves creating something new. Creative workers tend to have different intellectual and personality characteristics, then they are less creative counterparts. In general creative people are more mentally flexible than others, which allows them to overcome the traditional way of looking at problems.

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- Creativity helps in placing ideas to good action.
- Creative thinking develops innovative ideas.
- It helps in overcoming traditional way of looking at problems.
- Facts and observations are key in creative writing.

But for this you know to be very new and very advanced and recent you need to be very aware of the society, you need to well read, you need to be alert to know the people, the world, the society, the situation only then you may multiply the solutions for a problem. Creative thinking requires a broad background, broad background of information thing, broad background of information what does it mean, this is what I said.

That you need to be alert, you need to know the world, you make yourself very alert, so broad background of information including facts and observations. Alert means that observation you observe things very minutely, it is not something that you are not bothering for anything. This is how we learn how to excel in life through experiences. Creative workers tend to be bright rather than brilliant, the key to creative intelligence is insight.

Creativity can esteem from both fluid intelligence that is raw and crystallized that is accumulated intelligence. The emotional and other non intellectual aspects of a person heavily influenced creative problem-solving. For example creative people are frequently non conformist and thrill-seekers and this is what in my previous lecture I said without risk you cannot do anything. But risk does not mean that you are about to jump in a black hole.

You should have some idea of where you are going and what kind of result you may get after applying this solving a strategy. Creativity takes place when 3 components come together expertise, creative thinking skills and the right type of motivation, yes it means that you are not taking risk you know blindly. Because these 3 important aspect expertise, creative thinking skills and the right type of motivation very important.

Creative thinking refers to being flexible and imaginative, flexible means as I said that do not support your belief system that is there in your mind from ages, no be flexible.

So, that you can challenge the situation and imaginative means the criticality of your thinking, your brain. That is why cognitive intelligence and education very important, the right type of motivation refers to passion for the task and intrinsic motivation. Now 4 factors outside the person play a key role in fostering creativity and environmental need enough conflict and tension to put people on edge.

Encouragement from management and the presence of humor unless a person is working on a highly focused task time pressures are likely to diminish creativity. So, the environment where you work and what kind of environment you have in your life that is also very important. Methods of improving your creativity include concentrating intentionally on the task at hand that is focused, very concentrate.

Overcoming traditional mental sets that is do not be focusing on your old belief system, be creative. Disciplining yourself to think laterally, conducting brainstorming sessions, borrowing creative ideas, challenging your ruts, establishing idea quotas, playing the roles of explorer artist, Judge and lawyer and taking a break sometime break is also very important. Brainstorming has several variations including electronic brainstorming in which people enter ideas into a computer.

Brain writing is essentially, solo brainstorming the forced association technique requires problem-solving by making associations between the properties of 2 objects. Brainstorming is something which forces you to come up with a solution valid solution to mean the criteria for solving a problem in a creative manner. The solution should resolve the declared problem in an original manner with the solution being reached independently.

This idea generation strategy usually incorporates a team approach, this is owing to the fact that people inside the work place are allowed to engage in the process of change in their search for creative solution. Coming to the more specific use of the term creative problem-solving refers to the trademark Osborn Parnes process of creatively solving problem, what is this.

The process was crafted by Dr. Sidney J. Parnes and Alex Osborn in 1950s, the difference between this process and other CPS that is creative problem solving a strategy is that there is utilization of both convergent and divergent thinking. In the course of each process step and not only when coming up with ideas to fix the problem, so convergent and divergent both and this was developed by Dr. Sidney J. Parnes and Alex Osborn in 1950s.

Each step starts with divergent thinking an extensive search for multiple alternatives after this comes converging thinking that involves evaluating and selecting. This strategy is taught at the creative problem-solving institute, the international centre for studies in creativity and the Sarah conference. It is particularly recognized as an important influence on the productive thinking model, so this is not a myth, this is a fact.

And involved in the central International Centre and even in a conference, what is Osborn Parnes CPS, what are the models, if we talk of Osborn Parnes CPS.

First is linear, in the linear model each of the 6 stages of the creative problem-solving process is

represented by a diamond shape. The shape signifies first generating or diverting options followed by a selection of a refreshed focus and then moving on. Thinking was in a straight line moving just one step at a time for the sake of maintaining order, channeling freedom and this diamond shaped model came out in 1970 and this is called linear model.

Next is bubble model, in the 1990s the diamond shape changed into connected bubbles, bubbles you know the small puffy thing. The diamond shapes change into connected bubble representing attitude shifts towards directed and meaningful connectedness. Channeled freedom gets wider verb, there are 3 unique stages in the bubbles model. Visually this indicates authorization to enter not so only at the first stage as was the case in 1970s model but at any stage of the process.

So, this is the difference between diamond model and the bubble model, the linear model has diamond shape with smoother edges and there are arrows to give directions. The 3 bubbles in the bubble model let you know exactly what you should do, this is the difference. That linear model has diamond shape with smoother edges and there are arrows to give direction and 3 bubbles in a bubble model let you know exactly what you should do.

Now systemic, systematic or systemic, the thinking skill model is a system thinking skill model. So, first is linear, the second is bubble, the third is thinking model is a system with many entry points determined by the task at hand center of situation. The construction in this model is in agreement with our current web like interrelated view of the world, it depicts the distinctive core of each stage by renaming.

While the bubbles and accordion, diamond CPS model of a rational logical approaches to CPS providing an overt course of action. This model tells you what happens, it outlines the 3 key phases and charts the thinking process utilized for each. One can see the diamonds remain the 3 key focus point join in fluid, color with the beginning point varying with a situational requirement.

Well there are certain other techniques also, synectics what is synetic, synectics is usually classified as a creative problem-solving technique along with brainstorming and lateral thinking. Synectic, it comprises the brainstorming technique and lateral thinking technique, this problem-solving methodology inspires thought process that the subject might not be aware of.

The credit for developing the technique that had it is beginnings in the 1950s in the Arthur D little invention design you need goes to George M Prince and William J.J Gordon, these are pioneers. The process was gathered from tape recorder starting with audio with video coming letter, recorded meetings, assessment of the outcomes and experiments with other methods of coping with the barriers to achievements in the meeting.

The term synectics has its origin from Greek language and means the combining of different and supposedly irrelevant elements. See the combining that is why this model, this strategy synectic comprises brainstorming.

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- Brainstorming helps in solving problem creatively.
- Both convergent and divergent thinking are strategies to come up with new ideas.
- Synectics, as a CPL technique is often inspiring in problem solving methodology.

And lateral thinking model and origin from Greek which says that combining of different and

supposedly irrelevant elements. Though synectics is a trademarked name, it has turned into a standard word for delineating creative problem-solving that takes place in groups. This idea generation technique approaches problem solving and creativity in a rational manner perhaps this is very important, because this technique offers problem solving in a rational manner.

In Gordon's opinion synectic research has to do with 3 key assumptions, it is possible to describe and teach the creative process, when we talk of synectics what Gordon says that it is possible to describe and teach the creative process invention processes in science and arts are analogous and propelled by the same psychic processes creativity at the level of individual and group is analogous.

Now Trey's methodology, what is Trey's methodology Trey's or tips theory of inventive problem-solving that is tips. Theory of inventive problem-solving Trey's or tips was created by Generic Althusser and his coworkers. It is a recent method of problem-solving, this strategy is meant to cultivate the creation of patentable inventions. However the technique is also helpful for developing non product solutions.

In the beginning following the invention of bulletproof glass a trade-off happened, though the glass would prevail the bullet from entering the former would crack to such an extent that the vision of the pilot or driver behind the glass would be obscured. Trey's has a considerable list of principles for setting trade-offs, in this particular case the pertinent principle was segmentation for which the solution was to create a huge pane of glass from a smaller panes.

This was to ensure that the cracks were limited to the one small pane, if you are capable of articulating your trade-off. The chances are high that Trey's has methods to triumph over it that have proved successful with respect to other problems. Mind mapping, this creativity technique both reframes the situation and cultivates creativity. A mind map is a representation of concepts and idea in a graphical manner as the name is mind-mapping, so it is in a graphical manner.

This visual thinking tool assist with a structuring information, assisting with better analysis, synthesis, comprehension, recall and engendering of new ideas. The power of the mind map is traceable to its simplicity, so this is very useful when we talk of the creative problem-solving mind mapping. Lateral thinking, lateral thinking is a manner of thinking that looks for a solution to an obstinate issue through unorthodox elements or methods that would usually be disregarded by logical thinking.

To be more precise lateral thinking may be defined as a way to solve problems by a creative or indirect approach utilizing reasoning that may not be obvious straight away or incorporating ideas that cannot be gathered by utilizing only conventional step-by-step logic means something experimental also needed. The term was coined by Edward de Bono a foremost creativity practitioner in 1967.

De Bono created 2 different models pertaining to creativity thinking namely parallel thinking and lateral thinking. The creativity practitioner created the 2 models over many years with mechanism of the mind book coming out in print in 1969. So, he talks about these models parallel thinking and the lateral thinking in his book mechanism of the mind which published in 1969.

Parallel thinking has to do with pondering over an issue in a single state of mind at a time as against confusing ourselves by attempting to process several issues differently in a single go. Coming back to lateral thinking the concept makes you realize that coming up with breakthrough ideas does not necessarily have to spring from a shotgun effort or luck. The method provides a systematic and most importantly deliberate process for which the outcome is innovative thinking.

Creative thinking is no talent you have to keep in mind it is no talent but rather a learnable skill. Remember I mentioned that you have to be alert you have to be aware of several things you



should be well read.

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- One should adopt lateral thinking while approaching CPS.
- Challenge, alternatives and provocation are examples of lateral thinking.
- Follow serious plans to tackle the problem.
- Embrace CPS as a technique to see other unconventional aspects.

So, that your mind coins up and coins new ideas, so creative thinking is a learnable skill. It empowers those who adopt it by strengthening their natural abilities, that is what is natural abilities your critical thinking which enhances innovations and creativity, which in turn leads to a boost in efficiency and profit. Challenge alternatives and propagation and movement are 3 examples of lateral thinking techniques.

So, remember challenges, alternative, provocation and movement these are the challenges of lateral thinking techniques. Scamper, the basis for scamper is the belief that everything new in a variation of something already in existence. Scamper s c a m p e r is an acronym and each letter indicates a different method by which the person can toy around with the features of whatsoever it is that is challenging him or her to come out with new ideas.

Well the letters and their full forms signifies s for substitute, c for combine, a for adapt, m for magnify p for put to other uses, e for eliminate and r for rearrange both are alternative. To utilize scamper technique start by stating the problem you wish to solve or the thought you wish to develop. What to substitute in my process of selling, how do I blend selling with other activities, what to copy or adapt the selling process of another person or company.

What do I put more weight on or magnify when selling, what other uses can I put my selling to, what do I eliminate or make easier in my process of selling, how do I change reverse or reorder my manner of selling. With the help of these questions you are pushed to a different viewpoint with respect to your problem and ultimately come up with original solution. Now all that is left is to put your plan into action and so case the result of your problem-solving skill.

Please follow the plan that you and your team have set out and be sure to follow up to ensure the work is complete whether are business or in your personal life. Creative problem-solving can help you to see aspects and solutions that you may never have realized when you only permitted your mind to move the conventional path, so embrace it and till then thank you. We shall meet again to discuss some more important aspects of interpersonal skill and moreover I would say have faith in yourself thank you very much.