

Project and Production Management
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Lecture - 17
Team building and Leadership in Projects

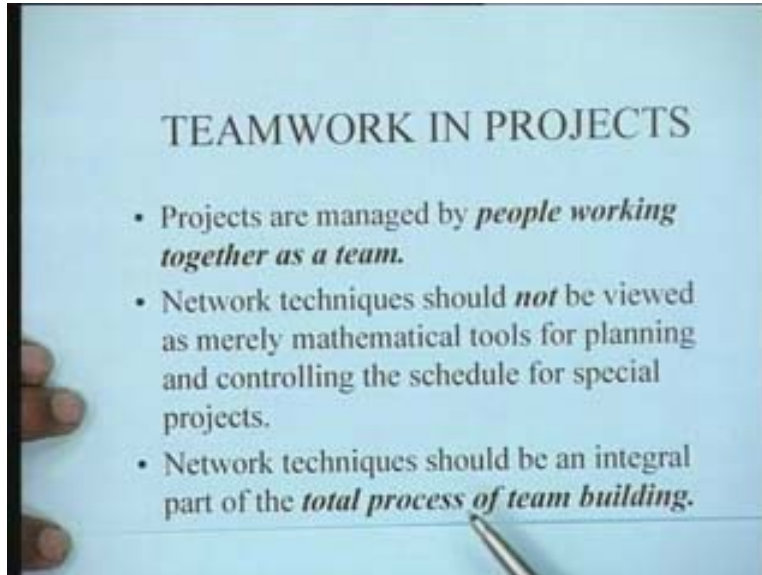
Today we are going to be talking about team building and leadership in projects. So far our discussion has been confined primarily to the activities of project planning and project implementation using the network diagram as a basic vehicle. But in this planning we must not forget that ultimately it is the people, it is the project team which is going to implement the project and which is also going to plan the project before it is implemented. Therefore it is imperative that we must be aware of the means by which we can make project teams more effective, project teams more productive because it is on the efficiency of project team that the success of the entire project depends. Even the best planned project can turn out to be a failure if it is not well implemented and this could be due to behavioral problems, could be problems of conflicts between personalities in the project team and therefore it is necessary that human relations as far as the project team is concerned should be looked after very, very well. What we are going to talk about in this particular lecture is to see how the project planning using the project network itself can be used as a vehicle to build a proper team and to inculcate the development of proper leadership styles within the aspect of project planning as a whole.

Taking this view let's see what exactly do we mean by team work in projects. Team work in projects; I think the title needs no further clarification because ultimately projects are to be executed by people working together in a team. There is a very good acronym for the word team. TEAM sometimes it stands for together each one achieves more. That is individually they don't achieve anything but when people are together working in a team each one achieves more. You are aware of that proverb in Hindi – "ek akhela dho gyara". Basically that's the kind of thing that we are trying to say. There is a synergy which has to be evolved as a consequence of operating in a team. The important thing is that projects are managed by people working together as a team. That's the important thing.

I hope you understand the distinction between a team and a group. A team is also a group but a team is a group which has a focused objective; much more focused objective and is all committed or bound together by that common objective. Groups could be loose; loose group of people which would meet off and on, which may or may not transact some business together. But when we are talking about a team it means that the team is actually a configuration of people who are brought together with the specific intention of accomplishing an objective. That definition of the team has to be kept in mind. The other important thing that we have to bear in mind really is that network techniques should not be viewed as merely mathematical tools for planning and controlling the schedule for special projects. Although they are tools projects cannot be accomplished merely by network techniques or merely by any sophisticated analysis that you might do with network techniques because ultimately whatever you do the results have to be

implemented by the people concerned and what we are trying to say here is that network techniques should be an integral part of the total process of team building.

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The thrust in today's lecture is going to be on how network techniques could be made an integral part of the total process of team building in a project. That's what we are trying to talk about.

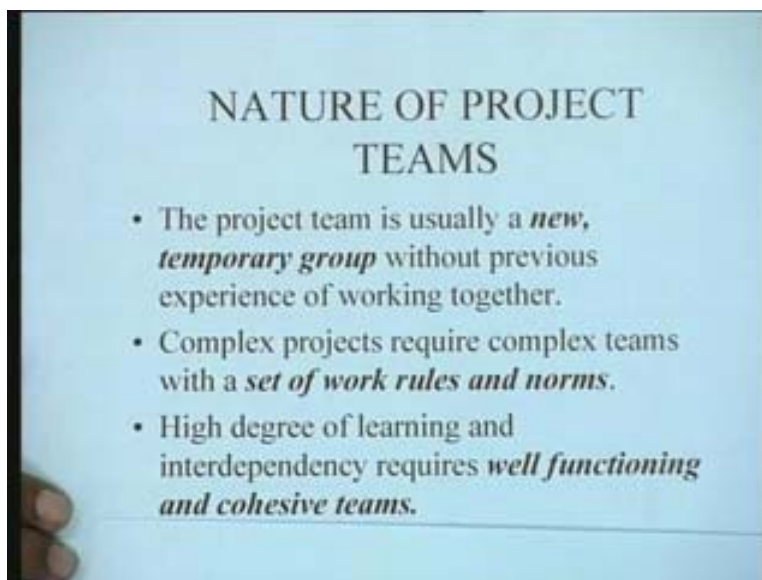
Let's first see the nature of project teams. What is their nature? How do they come about and what exactly happens when you are talking about a project team? Normally each project team is usually a new, temporary group without previous experience of working together. That's how a new project team is generally formed. Whenever a project is conceived depending upon the nature of the project we try to collect people from different areas of specialization who would be potential contributors in the project and they are brought together. It is a new group, temporary group with no previous experience of working together. That's how people come together to form a new project. That's how it is. This particular project team must now be able to grow and deliver the goods, must be able to do the project very well. Only then it would be a very effective team for accomplishing the mission namely completing the project, purpose for which it was basically designed.

Most projects that you handle, large technological projects are complex projects. By complex projects we mean projects which involve a variety of tasks and the tasks are generally interdisciplinary in character. That's what you mean by a complex project. These are features of all projects that we typically talk about these days. Complex projects require complex teams with a set of work rules and norms. Whenever people work together they need a basis on which they will work together. They will meet; after all human beings are social animals. When people come to work on a project they would meet, they would make friends, they would talk, chit chat, they would transact business

and in doing all this they would have some work rules and norms which pertain to the organization in which they work and therefore we must try to ensure that we have the right kind of work rules and the right norms if we want them to be productive or effective in producing the team.

The high degree of learning and interdependency is required of all complex projects. Actually these things require well functioning and cohesive teams and our objective is to see how these well functioning and cohesive teams can be made to come into operation. What is it that we can do? What is it that the members have to do so that the project team becomes a well functioning and a cohesive team.

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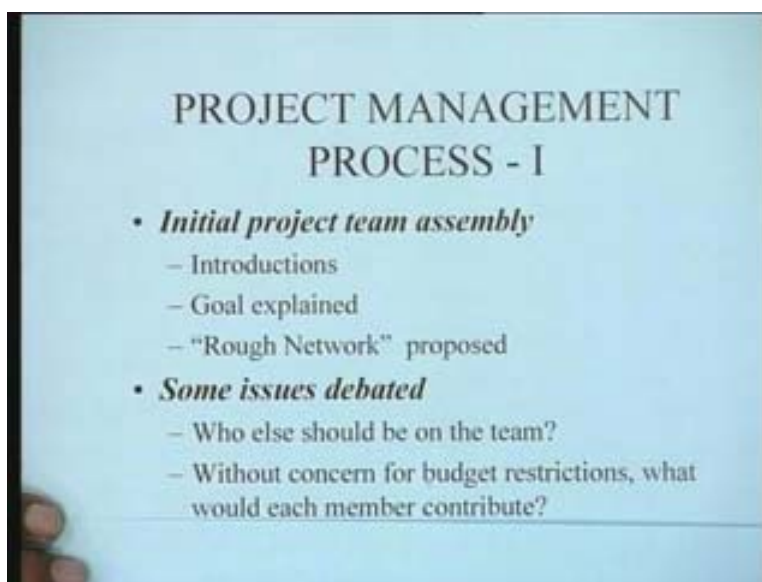
This is primarily what we want to achieve. In order to achieve this objective let us see how the project management process can actually integrate its process of development with the process of team building. Let's look at the project management process. It is the process which is more important here. The first stage in the process, project management process is when this new set of people come together. What happens is there is the initial project team assembly. When all the people come together, people from diverse backgrounds assemble and meet and may be the project manager gives them an introductory talk on the scope of the project what they are expected to do and what is to be done. This is the beginning of that process, the project management process where interaction begins between the project manager and the various team members.

What is done here? Basically introductions are exchanged. Introduction exchanging is a very important part. When you say who you are and you find out, who the other members are that is the process of getting to know each other and it is a very important part as far as the team is concerned. These introductions are very important. The goal of the project is explained. The project goal in terms of the broad scope of the project is explained by the project manager; that this is the broad scope of the particular project and this is the

background and against this background may be you are talking in terms of setting up a new refinery. If you are talking about a refinery you would have to talk about various refineries which exist and the short fall that exists and how this location has been chosen and the relative importance of this particular project and what it will do and how it compares with other refineries. This would be the kind of background. This background is not unimportant. It is very important.

Why it is important is because it would enthuse and involve the project team together and it would sort of bind them to a common objective and will commit them to this particular project. When you are talking about these things, **you are talking about them** explanation of the goal is a very, very important thing in trying to buy the group and trying to knit the group together with a common goal. The rough network can be proposed here at this stage. What we mean by a rough network is that you can say that this would involve construction of various things. There could be a construction phase, there could a chemical plant. You could talk about the major aspects of the plant and you could develop a rough network which would specify exactly what is going to be the structure of this particular project? At this stage we are trying here to use the project network as a kind of an agenda, as an agenda for everyone. It is a common document which everyone will read and it is a document which everyone will use for purposes of not only seeing what the whole project is about but also for identifying what contribution he individually has to make in that whole. Both these things are important. Have a committed team to get involved right from this particular stage. You propose a rough network and some of the issues debated at this initial meeting would be may be people would say this project might involve a specialist in the chemical engineering area and we don't have one. May be we should put somebody in the area of chemical engineering to be on our team. You could suggest some names. Questions like who else should be on the team and without concern for budget restrictions what would each member contribute.

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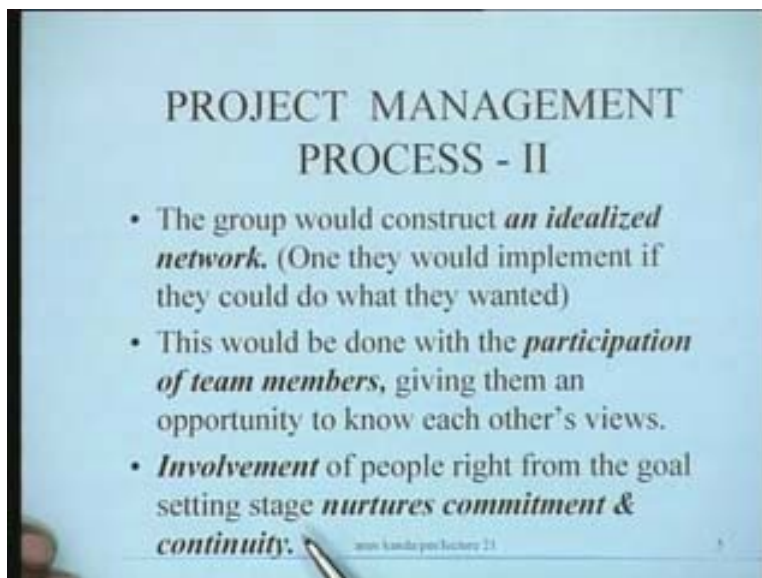


These kinds of discussions would take place when you are proposing a rough network right at the project management process itself and thereby getting people to talk about what their potential contributions could be in the project and also talk about identifying who else could be there on their team.

This is the first phase which would probably take place in the first one or two meetings of the project. There is also a second phase of the project management process that we are talking about which would be a common process for all projects. First we talked about a rough network, a project network. **which would specify** Then the group would debate and discuss among itself and it would probably construct an idealized network. An idealized network would be one that they would implement if they could do what they wanted. Why this kind of a thing is generally done in practice is that quite often in the beginning the entire scope of the project is either not known for sure or even the budget is not clearly defined in the beginning.

It is in fact the job of the project team to find out exactly what the scope of the project is, to define its own share and may be to ask for whatever is really required for that particular project. In that sense this process is generally iterative to begin with. It is iterative in the sense that the group would probably think that if we had no constraints then probably this is the idealized project network that we would like to do and this is what would happen and then the main advantage of doing this would be that this would be done with the participation of all the team members. It gives an opportunity for each member in the project team to express his point of view and it gives an opportunity for his point of view to be known to other members of the group. This is therefore a very important exercise in that sense. It gives them an opportunity to know each other's views from this particular exchange and then another important thing is that involvement of people right from the goal setting stage, we are at the goal setting stage for the project, nurtures commitment and continuity.

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If you have involved a person right from the stage of developing the project plan then that person is committed. Commitment is not something that comes naturally with a person. You have to inculcate commitment in the individuals and one of the ways of inculcating this kind of commitment is by involving the people right from the start and let them participate in the process of goal setting jointly and once they develop this kind of a goal they feel committed to it; then they are committed. They are not like uninterested people. So I think commitment is really something very, very important.

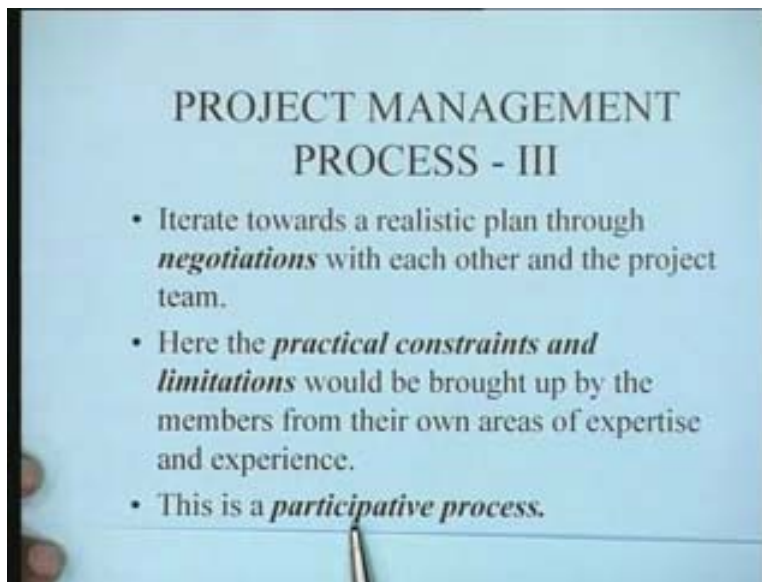
I think you have heard that story about a particular laborer who was sitting when a large building was being constructed and he was asked by somebody what are you doing here and he said I am breaking stones. That was about it and then another laborer who was sitting on the right hand side when he was asked what he was doing said well I am breaking stones and I am earning my living here. That was another thing and then the person went a little further up and countered a third gentleman; again a laborer who was breaking stones doing the same job and asks what are you doing? He says I am participating in a team to make a huge temple. That means he had actually identified himself with the goals of the project. The other two had not identified themselves with the goal or the project. The first man was totally indifferent and said I am breaking stones; to hell with everyone else. The second one had a slight level of personal ambitions and personal objectives when he said that I am earning my livelihood through this process of breaking stones. The third one had actually integrated his personal goals to the organizational goals and he was therefore more enthusiastic. That is the variation and the degree of level of commitment that can be there in an individual. When you are trying to talk of a project team commitment you don't want to have people who say we are breaking stones. You would like to have people who are participating in the process of making the project a success which means you want the third level of commitment and enthusiasm in the people and if you want to do it this is one way of doing it; involvement right from the beginning stage.

Let's talk about the project management process III, the next stage. Basically what we have now is this team which came together in the beginning after the introductions. Then they worked on a project. They developed an idealized network that this is what we can ideally do and in the process had some discussions and then they would iterate towards a realistic plan through negotiations with each other and the project team. A plan can be an ideal plan but now they have to recognize the fact that they would have limited resources, that they would probably have to do it in a limited amount of time and the kind of expertise that they have at their disposal is also the kind of people who are the members and therefore they might want to refine their estimates of time, refine their estimates of resources and come towards the more realistic network with estimates through negotiations with each other and the team.

The negotiations are very important here mind you because they are again the process through which this kind of human interaction takes place and they come up ultimately with a realistic plan and what happens is that in this realistic plan the practical constraints and the limitations would be brought up not by anybody but by the members of the team. Somebody would say no I cannot make this particular building in so much time because

it is too big; I can't transport so much materials and wood is available only at 100 kilometers away. The members from their own areas of expertise and experience would highlight the constraints and limitations and each one would then through this process of consensus arrive at what they consider to be a mutually agreed upon network and once they have gone through this process they are now committed to that particular network. Mind you the network is only a physical document which actually is an agenda for what they have to do and they are all bound together by this particular document and mind you this entire process is a participative process.

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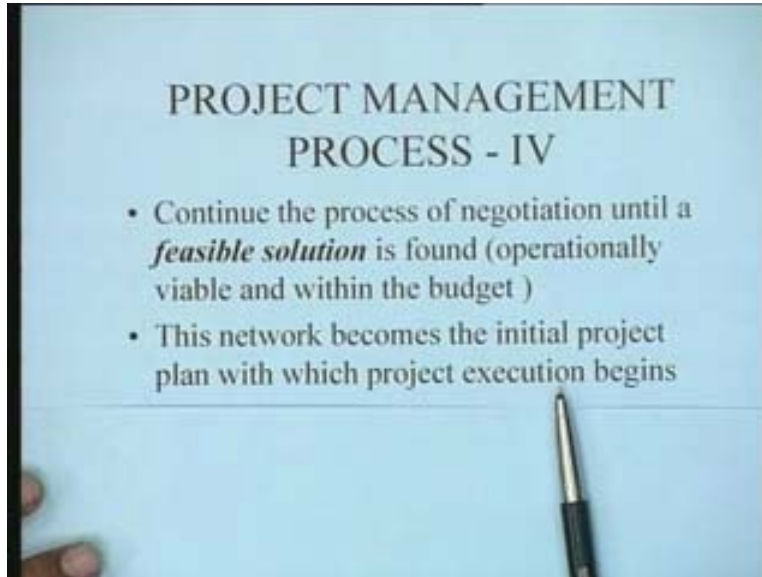


That's the important thing. Whenever you are dealing with people it is best to involve them, let them participate. Quite often we tend to think when we go to a meeting that this is going to be the consensus of the meeting; I can take a decision. No; the very fact that people get an opportunity to talk about their problems, to discuss and then to accept a solution automatically ensures that they have proposed a solution to which they are committed for purposes of implementation. I can have a very good idea myself but if no one accepts it, it is useless and it might be the best idea. What I really have to do is I have to convince others that my idea is good. I have to buy those people. I have to do some marketing strategies and do this kind of thing. That is what is achieved in the participative process. That's the point that we are trying to say here.

We are discussing how the project is actually taking shape right from the first stage to the fourth stage here. When we come to the project management process IV we would continue the process of negotiation until a feasible solution is found, feasible here meaning a solution that is operationally viable and within the budget. Remember the way we are suggesting that this be done if you recall when we talked about project appraisal for instance we said that the project appraisal should be done by people giving ideas talking about it and this process of involving people at that stage is only this, to encourage this participative character so that ultimately the project which is chosen has

the seal of approval of the various people who participate in the whole process. This particular network, the final network becomes the initial project plan with which the project execution begins.

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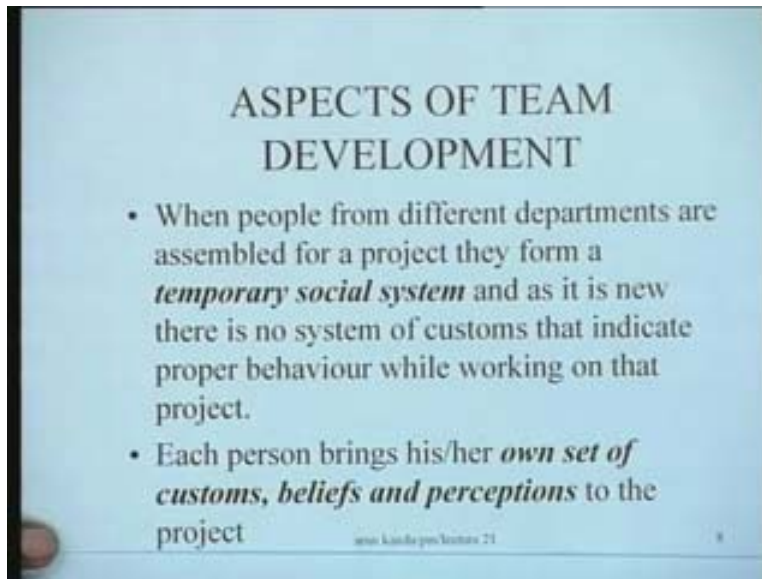


We have basically looked at the process just before a project is implemented because actually that is the stage when the team must be prepared. The team must be prepared to take the plunge. We have looked at the project management process which is the process of looking at the project goal, trying through negotiations to modify it and ultimately identify all the constraints and limitations and get the people committed on to that particular document and each person would know that in this whole process this is my share of work. This is the kind of thing that we really want to do. Having looked at this let's see specifically some aspects of team development and how they could be instilled while we are talking about specifically this kind of project management system.

What are the various aspects of team development? What do we mean by a team? How does it differ from a group? What are the ethics and operating culture of a team? Let's talk about some of these issues because they are relevant to the effective handling of projects. The important thing is that when people from different departments are assembled for a project they don't form a team. What do they form? They form a temporary social system in the beginning and we want to see how it is to be transformed into a team. They form a temporary social system and as it is a new system there is no system of customs that indicate proper behavior while working on that project. Raw people from different departments have come. They are just a separate group. They have to be shaped into a team because there are no customs prevailing for them. There is nothing by means of which they can immediately see and copy what to do; even the behavior and everything. When you go to a new place you are given water. You don't know where to keep the glass because you don't know; you have never been there; you are looking for a place. You are learning new things there. Similarly these people have to

learn the customs and what is proper behavior together. Each person brings with him or her the set of customs, beliefs and perceptions to the project because every person is from a diverse background, whatever customs he has, whatever beliefs he has and whatever perceptions he has that actually becomes the collection and in fact that is the legacy of the entire project team.

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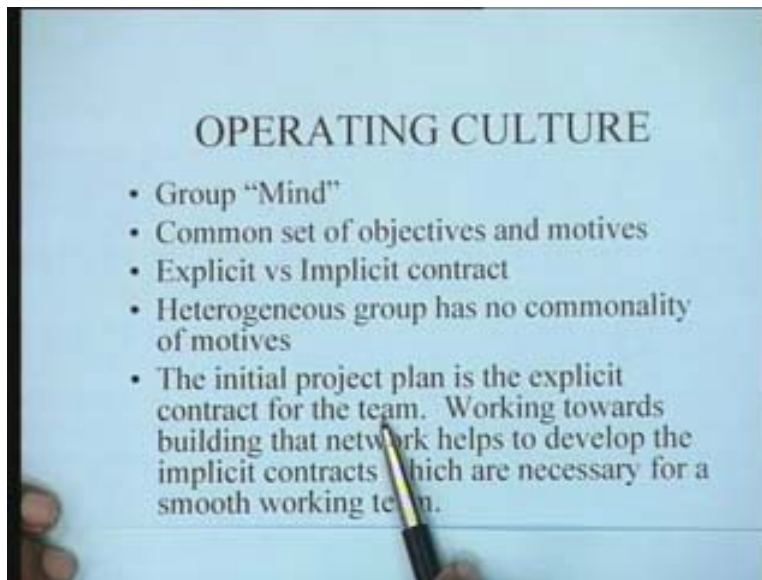
The individual customs, beliefs and perceptions and also the knowledge base of the people, these are all together what the team comes up with. What is the culture of this particular team? Let's talk about the operating culture of the team. The operating culture of the team is that it has a group mind. What's a group mind? Everything operates on a mind. If I go somewhere whatever my mind tells me I do that. When these people come together it is because they are a collection of individuals together. Each one has his own mind. Ultimately the mind which governs the entire group is the group mind; each one has his way of operating. In that sense they are operating by a group mind.

They have this thing common; they have a common set of objectives and motives hopefully and the common set of objectives and motives for the people who are working on the project are the completion of the project because after all the one thing that has brought them together is the project. That's the common set of objectives and motives and the important thing is that there could be an explicit or an implicit contract for the people. What I mean by explicit and implicit? For instance people are explicitly hired for something. When you sign a contract with somebody and say that I will do this for you and in turn will charge you so much as my consultancy fee that is an explicit contract with the people. So there is an explicit contract in the sense that all the members has come on to the project team by virtue of doing that project. That is the explicit understanding. Various departments may have transferred him for this purpose. That's explicit.

But there are many implicit contracts. Somebody might have come because his wife is stationed in that particular area. He has that hidden motive and somebody might have come because he would probably like to get some experience in the refinery area. So here that is another hidden objective. The real thing is they say that groups flourish not necessarily by virtue of only the explicit contracts but also by virtue of their implicit contracts. If you can try to make sure that the implicit contracts that people have, what is on their mind, tends to match the project objectives then you could be very successful; you would do it because then they are properly integrated into the system.

A heterogeneous group has no commonality of motives. This is an important point. A project group is essentially a heterogeneous group. There could be somebody from accounts, there could be a mechanical engineer, somebody who is a chemical engineer, an electrical engineer you have and somebody else you have. All these people have come and they have different backgrounds. That group is heterogeneous and not homogeneous and each group by virtue of its different training would have a different kind of motive, a hidden motive. This also has to be understood and the initial project plan is the explicit contract for the team, that is the network that we have developed.

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The initial project plan is the explicit contract for the team. Working towards building that network helps to develop the implicit contracts which are necessary for a smooth working team.

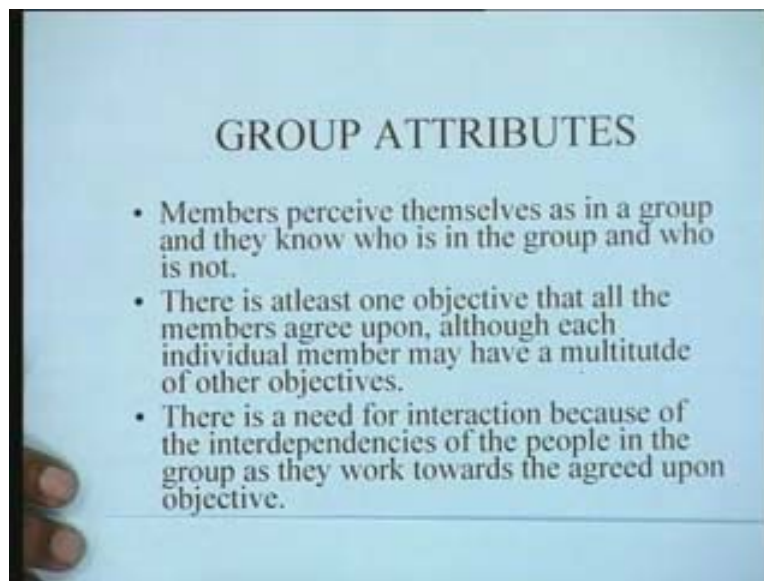
How does it help? When people sit together and work on a problem they discuss all kinds of thing. You say I have a problem with housing. I have not been able to get a house. The other fellow says there is a house vacant right next to mine. Why don't you come and join there? While doing the job they talk and they develop these informal relationships and in that process they develop these kinds of implicit contracts and once they develop these

contracts it is like a very strong well knit group because they are now all close together and this is how it can be done while the group is going on.

Let's now talk about some of the attributes of a group. What is a group? One of the simplest definitions is that members perceive themselves as in a group and they know who is in the group and who is not in the group. Those who belong to the group know that I am in this group and he is not in this group. Like a person in the BJP knows that I am a BJP man and he is a congress man and he knows even if he doesn't wear the dress he knows right in the beginning. The important thing here about a group is that there is at least one objective that all the members agree upon in a group. Although each individual member may have a multitude of other objectives a group thrives on the basis of this fact that there is at least one objective which all members share. This objective for the congress might be that we are part of the congress, we want the congress to become the next ruling party; some commitment is there.

Same would be true of say national pride. National pride; we are all Indians. We respect the Indian national flag and we are all Indians we know that. But they could be pursuing a multitude of other objectives. That's what we are talking about a group and there is a need for interaction among the group members because of the interdependencies of the people in the group as they work towards the agreed upon objective.

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People in a group tend to have interaction with each other because it helps in the fulfillment of that objective the professed objective that they have. That is how the group comes into being. These were some attributes of the group.

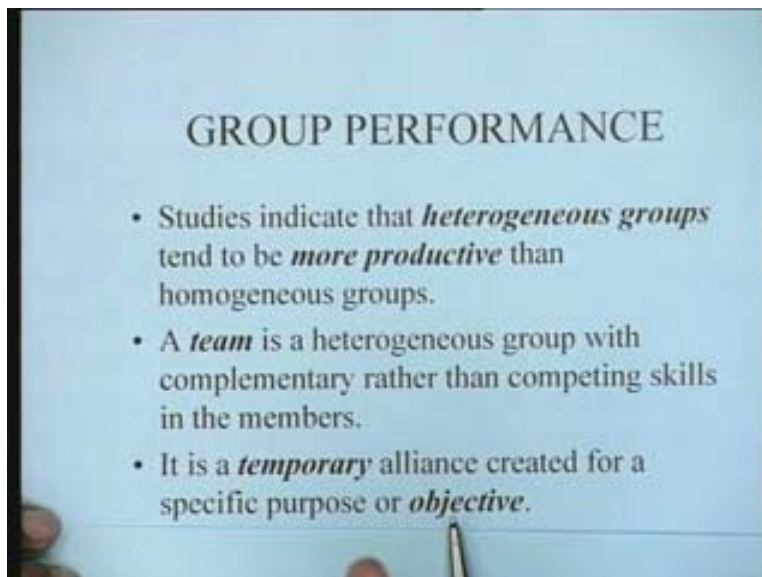
Let's talk about the performance of the group. How does the group perform? This is I think an interesting thing. Studies indicate that heterogeneous tend to be more productive than homogeneous groups. It is important to understand. If you have a homogeneous

group that means if all the people are having similar types of specializations they spend most of their time in bickering and fighting among themselves rather than being productive. Whereas if you have a heterogeneous group in which I have one skill, he has another kind of skill and they are put together then as a group it has been seen that they are much better in terms of their performance and what is a team? Ultimately we come to a team.

A team is a heterogeneous group with complementary rather than competing skills in the members. That is the important thing, the skills of the people. The way you define the team is also very, very important. You don't put in people who have competing skills, who will compete with each other. You are the man of accounts who will do the accounting. You will have a man who will do the side surveys and do the recording of data and other things for you. You have a computer man who will be able to feed the data and generate all the networks for you using Microsoft project software and then may be you require some other person who would be able to do something else. Each of the persons that you have has skills which don't necessarily match with those of the other colleagues but they are complementary. They are complementing each other. That's the important thing. This is what is important in a team and the important thing is that this alliance in the team is a temporary alliance.

Why is it temporary? Because when the project is over this will have to be broken up and a new alliance will have to be made for the new project. It is a temporary alliance created for a specific purpose or an objective. People have come together for a certain objective.

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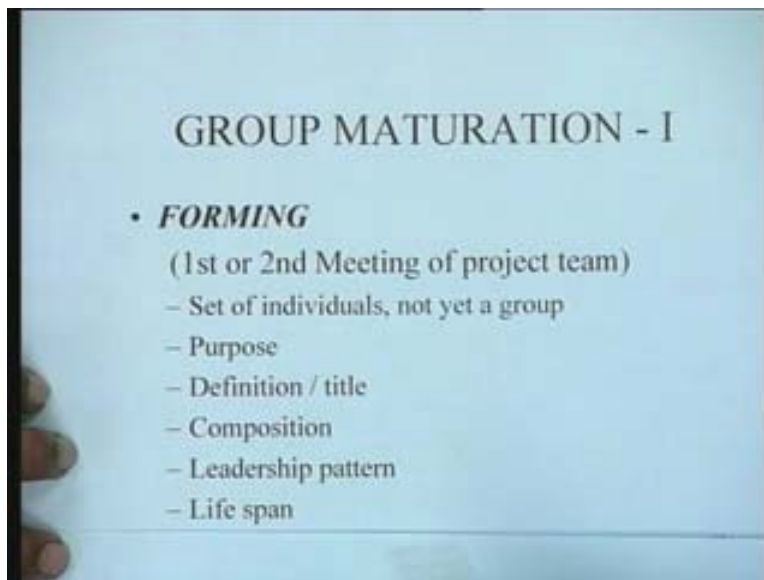


Their objective is to create, complete a particular project. Depending upon the nature of the project right kinds of people are put together. Lot of studies in the behavior of groups and teams have been done and they have said that groups tend to mature in a certain fashion and it is interesting for us to know this because ultimately what we want is we

want our project team which is totally raw to actually mature and grow in a certain fashion. Let's talk about how it should mature and grow and what are the stages of the maturity and growth?

How does a group mature? Group maturation has 4 phases. The first stage is called forming, forming of the group. How does the group form? Forming is equivalent to the first and the second meeting of the project team in our case, very similar to that and at this stage of forming they are just a set of individuals. It is not yet a group. They have not actually been brought together, people who come and at this particular stage the purpose of the group has to be made clear to everyone. What is the definition or the title that has to be given? The composition of the group has to be defined and the leadership pattern has to be defined. Is it going to be a democratic group in which they will elect a leader or will it have to be a group which is going to be managed by somebody who is appointed from the top and things of that kind? What is the leadership pattern? What is going to be the life span of the group?

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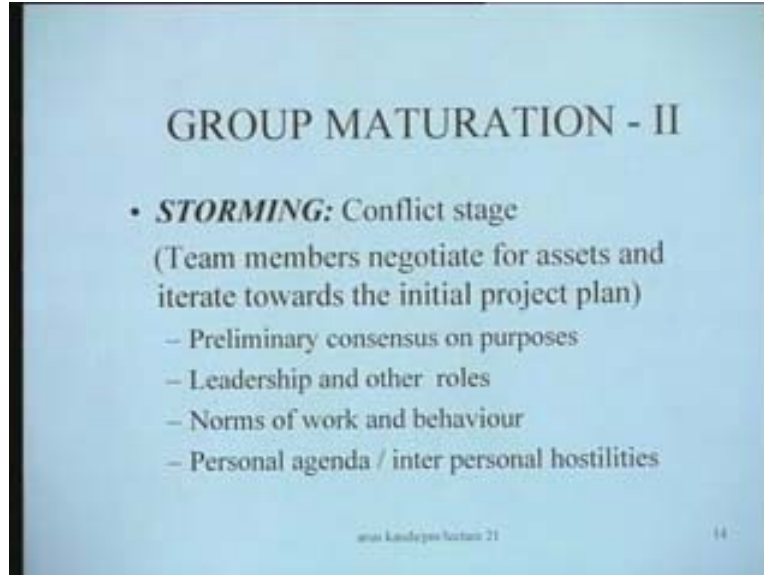
Is it going to last for only 2 days or is it going to last for 2 years? What is the life span of the group? These are some of the issues which you normally talk about when you are talking about forming of the group. Forming is equivalent to just people coming together for the first time, shaking their hands as it were meeting formally.

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This is a formal meeting between people and they just come and meet and get introduced and that's the stage at which the forming of the group starts taking place. The next stage of the group maturation is what is known as storming. People are formed and then they storm. They start fighting with each other, conflict. This is a typical stage. This is the conflict stage. What happens here is team members negotiate for assets and iterate towards the initial project plan. Basically they say I want this and I want that or I will be able to do this and I require this. People have this tendency to grab more resources and things. That is apparently the stage when they are storming. That's the stage when new people come and they storm. What is the requirement here? The preliminary consensus on purposes, leadership and other roles, norms of work and behavior and personal agenda and inter personal hostilities. These come up at this particular stage. This is the stage when they fight and try to find out what is to be done.

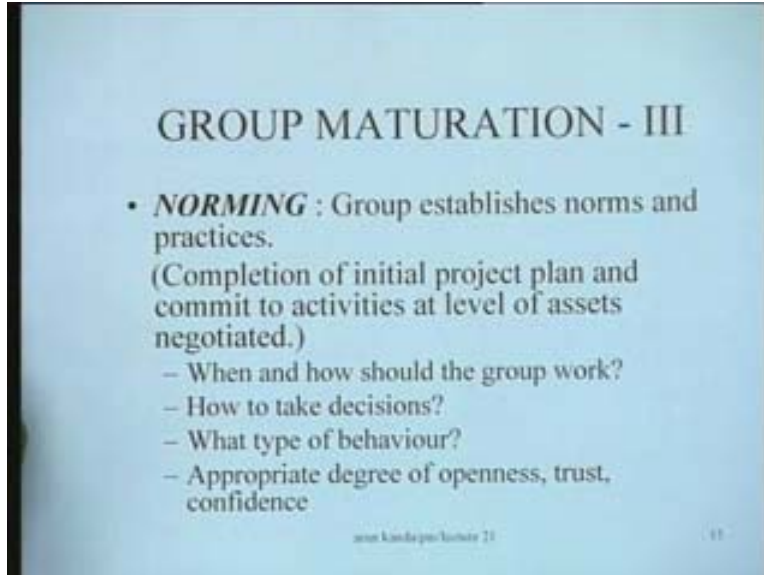
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Out of this fight from the second stage, out of this confusion emerges some kind of clarity in the third stage and that is the stage very important stage which is called the norming of the group. We started forming and then storming and then norming. Norming means the group will establish its own norms and practices based on the fights that it had and based on the stage that it has gone through in the storming phase it would establish the kind of behavior for the group. This in our case would be like completion of the initial project plan and commit to activities at level of assets negotiated, like the feasible project plan that we are talking about. You will know when and how the group should work.

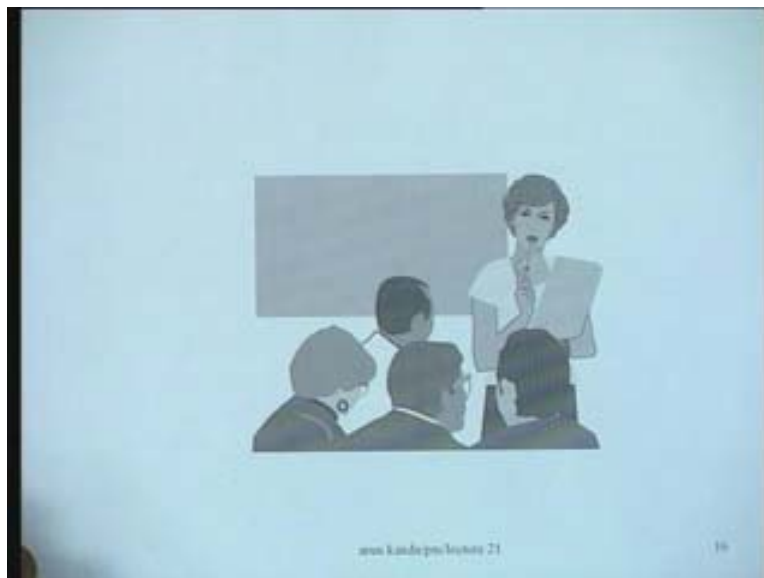
It is not only the timings here but it is the culture of working that we are talking about. How to take decisions? Is it going to be centralized or is it going to be decentralized? Who is going to take the decisions? Are you operating at a formal level or an informal level and these kinds of things. What is the type of behavior? What is the appropriate degree of openness, trust and confidence that you have for the group maturation?

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After doing all this, the group gets down to serious business. Now they are having a suitable discussion and some issues are being debated and you are now progressing towards this stage where you are now having a suitable

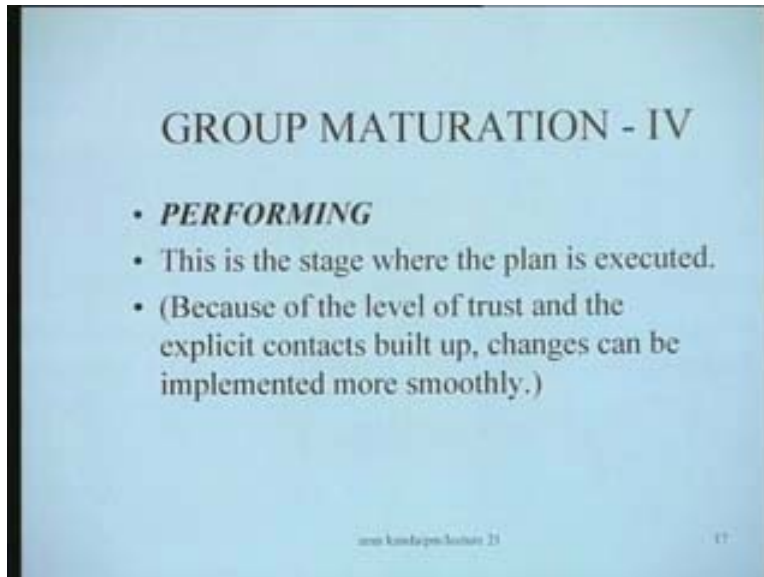
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Finally the fourth stage of the group maturation is what we call performing. You come to the stage when you are performing. The team must perform; the team was set up to perform. The earlier things were only preparations for doing this job. Performing is the stage when the plan is executed and because of the level of trust and the explicit contracts built up changes can be implemented more smoothly. The important thing is that if the

previous stages have allowed for a greater degree of participative controls and other things among the members themselves then the changes would be implemented much more smoothly. This is what performing is.

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Ultimately performing is like a football team. The player now has come to action. He is now playing the game.

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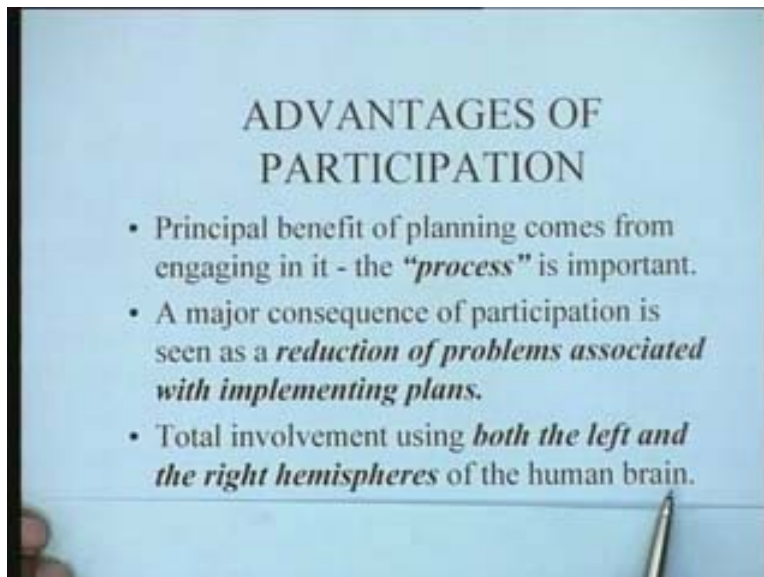


Each individual in the project management team has now to perform; he has to. Just as a football player has a different role depending upon what position he is playing, each

player in the project management team has a defined role and he has to play that role in that particular stage. Some of the advantages of participation can be emphasized here. The principle benefit of planning actually comes from engaging in it. Prof. Ackof has said that it is not the plan which is important in a planning. The plan is important; there is no doubt. But the principle benefit of planning comes from engaging in it. The process is important. The very fact that people get together and make a plan shows that they are participating and their commitment to their plan become much more effective.

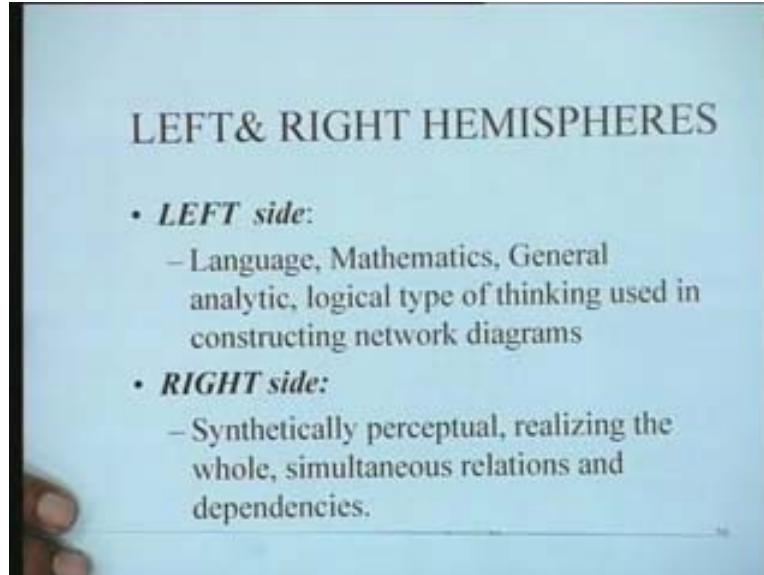
A major consequence of participation is seen as a reduction of problems associated with implementing plans. If we don't give thought to forming a proper team right in the beginning the way we have just emphasized you will have problems associated with implementing plans. Make a good team; they will solve their own problems and then you will have nothing to do with any implementation difficulties and total involvement using both the left and the right hemispheres of the human brain is possible.

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We have two hemispheres in the brain. The left hemisphere of the brain controls these activities. It talks about the language, the mathematics, the general analytical logical type of thinking used in constructing network diagrams and things of that kind. The left side of the brain is doing that and the right side of the brain is doing primarily synthetically perceptual work, realizing the whole, simultaneous relations and dependencies. That's it. The synthesis is done here and the analysis is done on the left hand side.

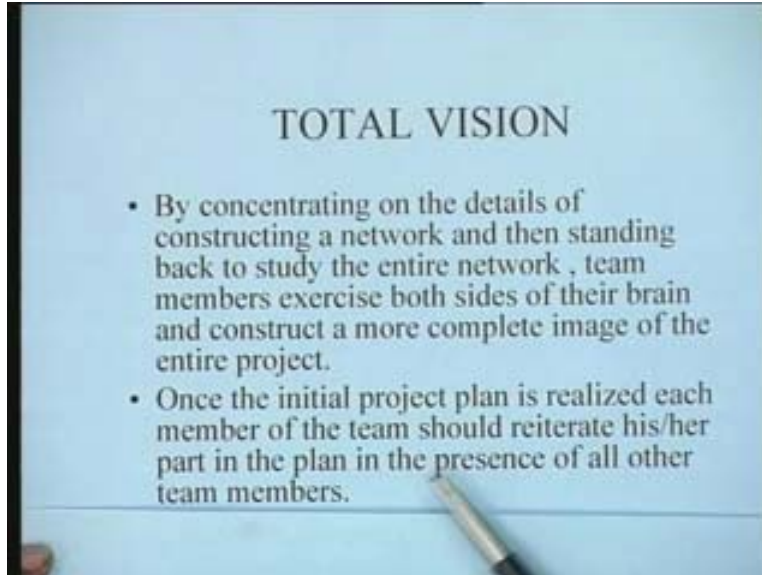
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Most of us tend to use only one side of the brain. For instance engineers they say tend to use only the left side of the brain and not the right side of the brain. But if you want to get a total vision it is important that this particular total vision can be obtained by concentrating on the details of constructing a network. But the important thing here is we have used the network as a vehicle to develop and use both sides of the brain by concentrating on the details of constructing a network and then standing back to study the entire network. Team members exercise both sides of their brain and construct a more complete image of the entire project. It is like saying there is a complete network and you show everything on the network. Every man knows that this is my activity, my job. He sees his own activity in detail. That's the left part of the hemisphere and then when he gets back and looks at the whole network he sees his part as a part of the whole. He can understand the effectiveness or the importance of his own job with reference to the entire whole and he gets a much wider understanding of his own job.

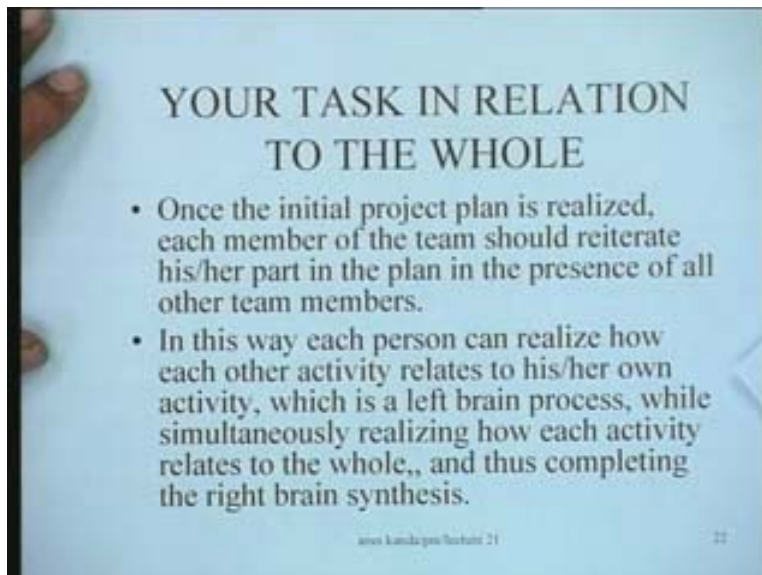
Not just I am breaking stones but I am participating in the team for making a temple. That's the kind of thing which comes about when he knows that this is his job in relation to the whole. That is the total vision which comes about and it encourages both the left and the right hemispheres of the brain. Once the initial project plan is realized each member of the team should reiterate his or her part in the plan in the presence of all other team members.

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This is again being stressed as the right way to do it because you have a meeting of the entire project team in the beginning. The project plan is done. Then each one should say what his job is? He should say it himself in front of the team because that would define his core of work and everyone else would understand that. The important thing now is that you have been able to define your task in relation to the whole.

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Once the initial project plan is realized each member of the project team should reiterate his part in the plan in the presence of other team members as we said. In this way each person can realize how each other activity relates to his own activity which is a left brain

process while simultaneously realizing how each activity relates to the whole and thus completing the right brain synthesis. It is a complete kind of involvement of people in that particular sense.

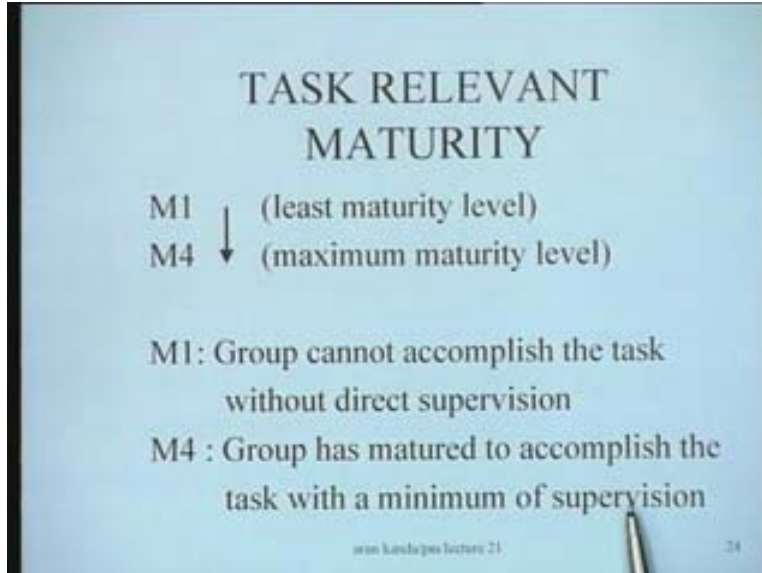
Let's now talk about some leadership styles because after all this team has to be managed and the project management that is the project manager is managing this particular thing. What are the leadership styles? The important thing to note here is project management is more the management of the team rather than the management of the tasks although we talk about management of tasks. But ultimately it is the people who are going to manage the tasks and if you can manage your people well you have done the job.

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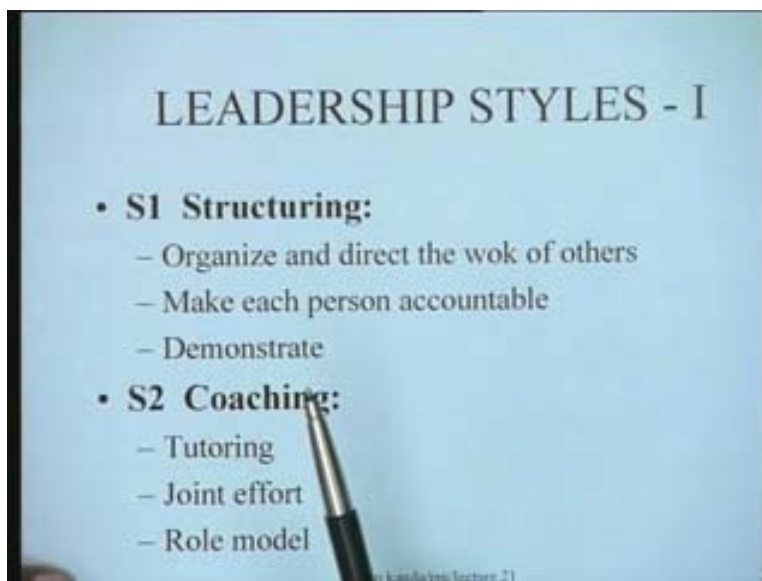
Project management is really management of the team and not the tasks although the tasks also indirectly and what does this team go through? The teams go through various stages in its development and maturity and let's talk about some of the task relevant maturity levels. Tasks can typically be divided into 4 maturity levels M1 to M4. We have M1, M2, M3 and M4, four types of maturity levels. M1 is the least maturity level and M4 is the maximum maturity level. What is the least maturity level task? M1 is a task which has the least maturity level if the group cannot accomplish the task without direct supervision. New workers have to be given direct supervision and they cannot accomplish the task without direct supervision. That is M₁ and gradually as I keep on improving we come to the stage M₄ where group has matured to accomplish the task with a minimum of supervision. It doesn't require any supervision.

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If we have these task levels we talk about different leadership styles. What happens is that these leadership styles are something like this. The first leadership style which we call S1 is relevant for maturity level M1 and it is called structuring. You can manage, you can be a leader who can be doing structuring. What it means is that you will organize and direct the work of others. You will tell others exactly what is to be done and how it is to be done and you will be directing the work of others.

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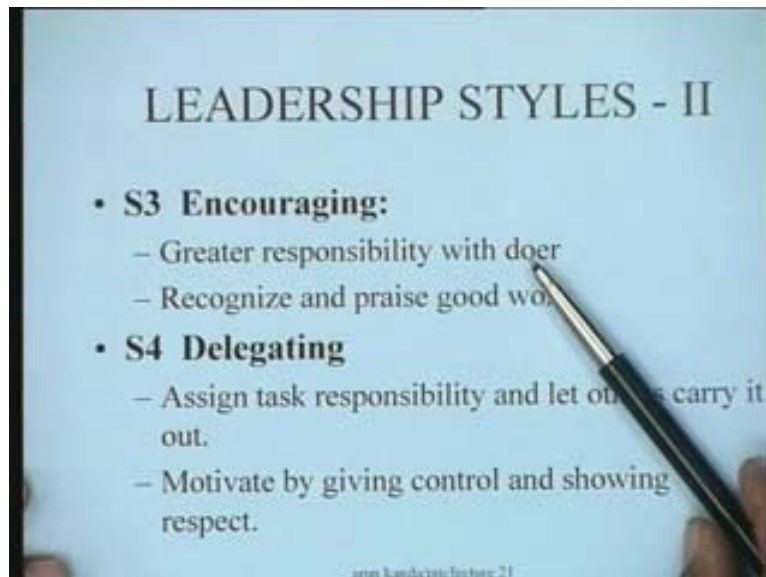


You will make each person accountable that you have to do this. You have to file it, you have to put this, you have to do this exactly and you will all also demonstrate how this is

being done. That is the first level of leadership. First level of leadership is called structuring where you define exactly what people will do, how they will do and you will also demonstrate to them exactly that this is the way it is to be done.

Our next stage is when your task has matured to M2. That stage is called coaching. Just like a football coach who is trying to teach a person how to play football. The coach actually plays football. He does some tutoring; telling him this is the way to kick a ball and this is how you should do and things like that. There would be some joint effort while you are playing I will play with you, let me play a match with you and let me tell you how this is done; that kind of tactics or management will come and you will also be a role model. The third kind of management style that we have is encouraging. What is encouraging? Encouraging means that you will go around, you will recognize and praise good work of the people and you will give greater responsibility to the doer, the person who does the work right. You will encourage him.

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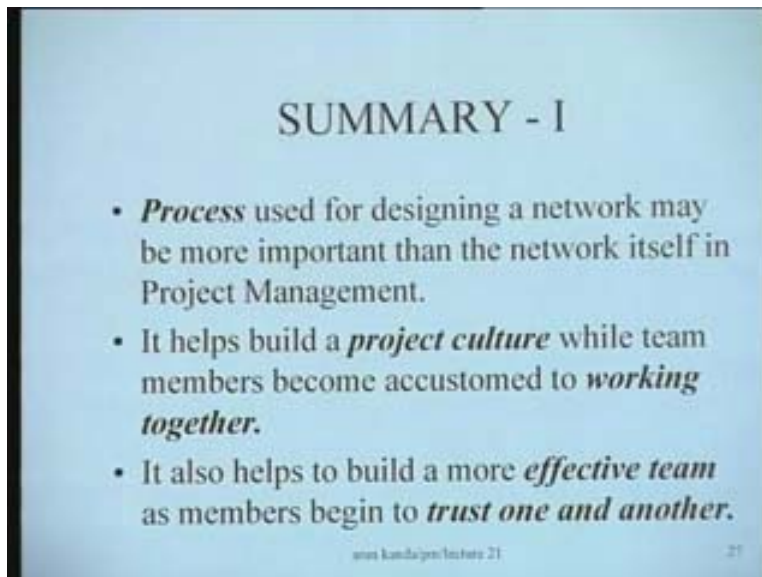
When we are teaching you, we could be adopting a coaching strategy in the beginning and we could be adopting an encouraging strategy for students. Isn't it? We do some coaching to tell you that this is how it is to be done; that is how it is to be done and when you mature we encourage saying that's good. We give you a problem and you do it. That's the kind of strategy.

The fourth leadership style can be delegating. What is delegating? Delegating is for the most mature tasks. Assign task responsibility and let others carry it out you don't do it yourself. You say that this task can be done by this individual; he is now very responsible. He has done this. So let me delegate this work to him and you motivate by giving control and by showing respect. How do you motivate a person? You give him control. Give him some controls that you are in charge of this and show respect to him. This is sort of refined method of leadership.

What is the kind of leadership that you need? Depending upon the level of your maturity you need the right kind of leadership style. For instance a child needs structuring. He has to be told this is how to solve a sum. You have to structure and demonstrate to him. Then you become bigger. In college we tell that we can now coach you. You become more mature and we will encourage you and when you have grown up you say now you can handle classes independently. I will delegate the responsibility to you and so on. Similarly in a project management team when it is formed you will have to go through these various management styles and ultimately do a style so that depending upon the stage of maturity of the individual members you will have to choose an appropriate leadership style. Depending upon the stage at which the individual team is you choose a suitable leadership style, adopt that and do the whole thing. This is the need of the hour.

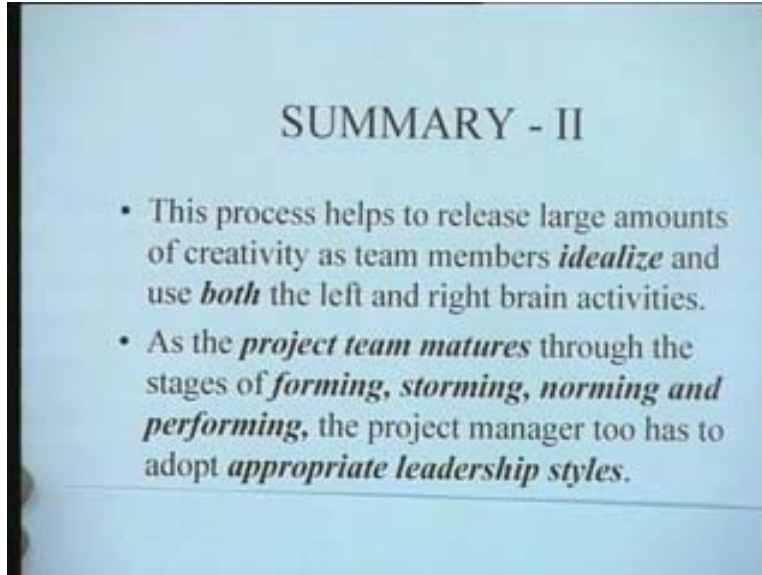
Finally let's summarize what we have tried to do during this particular lecture. The first thing that we have tried to see in today's lecture is that the process used for designing a network may be important than the network itself in project management. The process which has been used as a common agenda for everyone brings the people together and defines the goal of the entire team. The process used that means the way they get together, how we bring them together all this is more important than the network itself. This process helps to build a project culture while team members become accustomed to working together. This is the important thing here and it also helps to build a more effective team as members begin to trust one another.

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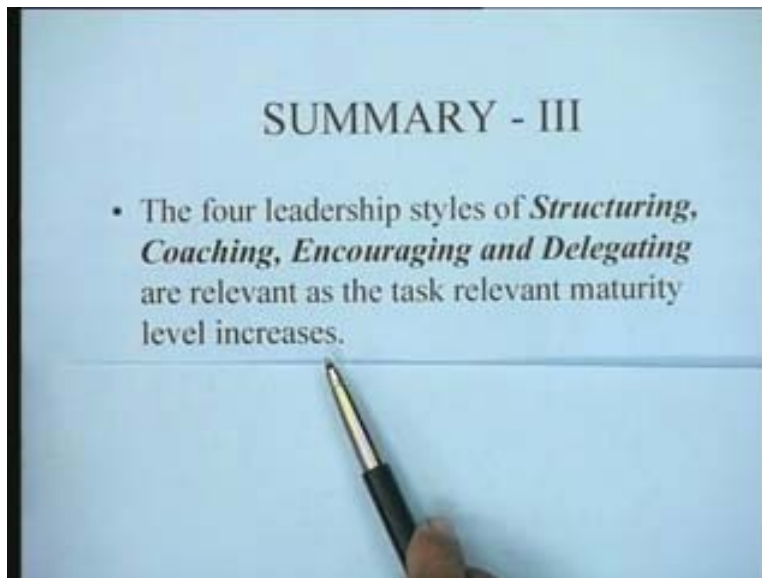
Then we have seen that this process helps to release large amounts of creativity as team members idealize. That is this can be done, that can be done and use both the left and the right brain activities. This encourages that and as the project team matures through the stages of forming, storming, norming and performing the project manager too has to adopt appropriate leadership styles.

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This is another important thing and the four leadership styles that we talked about of structuring, coaching, encouraging and delegating are relevant as the task relevant maturity level increases.

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In conclusion we have seen that the team building process in a project is extremely important and a lot can be done right at the stage of developing the network itself and we can use the project network as a common agenda for solving this, to encourage team building and to bring about leadership styles in the project team. Thank you!