Understanding Creativity and Creativity Writing Prof. Neelima Talwar Department of Humanities and Social Sciences Indian Institute of Technology, Bombay

Lecture - 8 Notion of Play and Three Domain Activities

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This lecture is titled the creative state of mind, and we are going to try and find a blend of experience and knowledge in ways that the creativity of each one of you is purred in the right direction. Now, this is really not a very simple matter, always also a joyous matter. So, a blend between simplicity and complexity. I suppose that we will have to handle, the reason there is complexity.

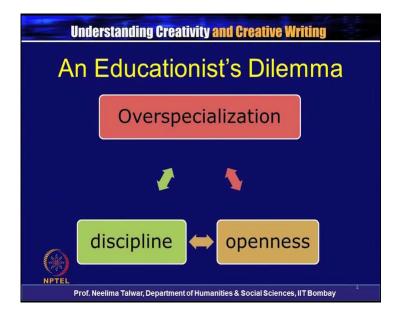
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I think is quite clearly a link to the socialization process and also the academic context. We would not talk about the socialization process very much, but we certainly need to talk about the academic context. Earlier in this module, I had pointed out that this course takes into account your academic context and the manner in which it has shaped you. I think you are at a point of transition.

Therefore, for you to actually try and see how the disciplinary boundaries within which your consciousness and your knowledge has been shaped, whether you can now take a plunge into it, interdisciplinary directions. The term interdisciplinary is very loose and much will depend on what kind of institutional background you have, whether there are number of different disciplines that are polarized and yet taught to you or whether you really have not been exposed to what can be considered as sort of a different kind of discipline. We will identify these disciplinary boundaries in a minute or two, but certainly, once again I would like to point out to you that interdisciplinary involves a new way of defining issues, experiences, problems and also solving them. It does not; we do not want to stop with mere definitions. We want to move on with creation whichever direction that creation takes us to.

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So, in that sense, once again I would like to prepare you for certain amount of complexity and at the same time retain your own sense of self. That is the kind of blend we are looking for. My dilemma is linked to the fact that as educationist, we contribute to you know system of overspecializations. The point is, without really radically rehauling the system because at this point in time, when we are talking to each other is really not possible for you and me to radically re-haul the system right from primary school or school levels to higher education.

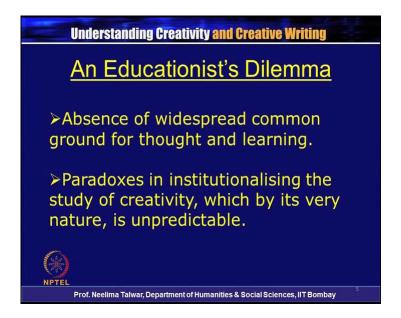
Therefore, it is within the existing system that we have to pitch our argument and so what one is really concerned about when one talks about overspecialization or the disciplinary boundaries is not really linked to the significance of that kind of knowledge, but it is really the kind of rigidity that sets in, so that instead of even asking new questions within one's own field, one keeps repeating the solutions that have already been offered or sometimes make a rehash of the earlier solutions. So, it is the kind of rigidity that one really is trying to fight against. Therefore, the issue is how do you maintain your firm feet in a discipline for which you have been trained and then at the same time move to other disciplines or other areas of knowledge or other ways of gaining knowledge and at the same time, consolidate your position because I really would not like you to feel disoriented or I do not really believe that at this point, it is right to talk about re-hauling your own sensibility or your own training methodology.

So, whatever you have learned if you began to critic it, I think certain amount of openness is possible, but that will not happen automatically. So, there are ways that we can develop for this to happen. This is what my concern is and therefore, I am actually trying to explore some kind of common ground that we can share across the bond. So, whether you are a student of science and technology or you are a student of the finer, liberalist, whether we can across the board move away from already given ways of gaining knowledge within the field, within the protocols of that field sort to say and at the same time, you know gain new perceptions, new ways of moving in fresh directions. As I said, without losing your feet in your discipline, the other dilemma while talking about these issues and processes and possibilities is related to the fact that creativity itself has a paradoxical nature.

Therefore, many people, many educationists, many thinkers and many creative practitioners have asked this question many times if creativity can be taught at all. They seems to be certain amount of scepticism that institutionalization garbs creativity and I do not think we can take that criticism lightly because the kind of delicate balance that needs to be maintained as I said between experience and knowledge, between your discipline and new disciplines that is something that does not necessarily guarantee a creative result because one has to have a certain kind of striving for this new thing to happen.

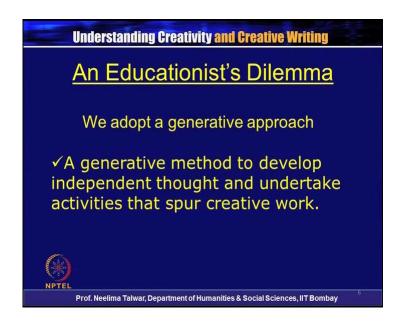
Therefore, you know without the kind of guarantee that everyone wants, the kind of certainty that everyone wants from institutionalizations, then the question is does it merit this kind of institutionalization occurs that is taught or courses that are taught regarding this whole you know elusive process of creativity. My take on this is that increasingly young people would feel the need for creativity discourses without a sense that they know the direction without a sense that they really want very clear cut answer. That is my hunch because I think increasingly, when we are settled with the different kinds of issues and problems, no scientific technological solution has solved all our problems, no social paradigms has worked completely and cultural issues also keep emerging.

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So, in that kind of kerosene confusion which I have already located in this all notion of globalization and the subaltern, you know that kind of the range of issues that these two extreme situations throw up. I think increasingly young people would feel the need to relocate their own sense of self in paradigms of creativity. Therefore, I am actually very, very optimistic. Although, I do not really want to be very naive about the problem areas that such an activity would generate.

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So, then although I am aware of these limitations, these difficulties and I know many of these questions may loom large in the minds of those who institutionalize educational activities. I have a feeling young people may not really be daunted by a new way of doing things. Perhaps they will give it an opportunity that it deserves. I have adopted a generative approach and again, the approach is based on the belief that the young are really for independent thought and they can actually find and discover new directions.

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I have a few ideas that I have listed here again, so you can go over these ideas in terms of what this open ended exploration is all about, but I have already talked about it. So, I would not read each of these points here.

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The most important take or the most important entry point in this course is related to the notion of play. So, when we talk about creativity, although though we have talked about creativity in historical terms, we have talked about the changing notion of the term creativity, we have also talked about the fact that in the Indian context, we may have different kinds of words and we may have different kinds of connotations and expectations and desires, but at the same time I would keep the term play at the centre of our entry into the discourse of creativity and the reason I want to do that is related to the fact that the term play, it sort of evokes a sense of freedom, a sense of joy or roughly you can describe it as a looseness of bean.

I feel that some of the exercises that we attempted earlier with you, exercises related to childhood experience and the undifferentiated play that you generally see in children in different conditions you know. Do you know whether it is a happy condition or a difficult condition when you think of children of different classes, different backgrounds? One thing that universally stands out is the propensity of every child to play with whatever is available in the environment. They play roles, they play with objects, they play with ideas, they play with the language and in that sense, it is undifferentiated play.

Now, this notion of play again is based on intuitive understanding and that is really not all that intuitive. I really begin to examine my own sense or notion of play because it is

based on one's own experience, but also the experience of raising children and watching number of children in the process of play. And therefore, on the one hand, it seems intuitive, but it is also highly influenced by the writings of number of writers who have evoked their childhood experiences while talking about their adult contributions. I do not remember each of these quotations right now, but immediately (()) Satra's words comes to my mind, immediately marquees and his Paris review interview in which he had some vivid descriptions of how ideas from his childhood images, from his childhood metaphors, from his childhood loom large in his consciousness and they sort of glue into his novelistic endeavours. I can think of Munshi Premchand writing from that perspective, I can think of Rabindranath Tagore's writing from that perspective, I can think of Einstein and his comments on his you know observation of the world as child. As I said, I do not remember the exact words. I also remember Rashid and Rashid's comment about how he wanted to recreate the vivid memories of his childhood in Bombay, Mumbai now.

So, in that sense, I suppose I am you can say romanticizing childhood. It is possible to look at it this way. I am became aware of this quite sharply when during the discussion of this exercise, one of the student had really savoir difficulties with this idea. He felt that the term play itself is not accessible to him. He felt that he associated a sense of trivialization with play. Now, this of course surprise me, but I also do recognize that each term that we use and specially a term like play and specially when you talk about it very enthusiastically almost is a utopian kind of experience that it is quite possible for people or young students or young learners to really react sharply to this because they may not really conform to that experience. They may not have recollections that are so very positive or so very joyous or so very vivid also.

Now, I do not want to go into any analysis of why that could happen, but I certainly was made aware of how there are different kinds of sensibilities amongst the students and there are also different experiences and therefore, in undertaking this activity, I am not undermining those experiences because we know very well that the discussion of any kind of experience, finally gets contextualized. You know what are the conditions in which you have live, what are the conditions, what are the emotions that have been encouraged and what are the emotions that have been repressed. In fact, if I may I will just quickly read the exert from this writer, from the student who found it difficult to

relate to this line of thinking and this is what he has to say. He says that more often than not, I have seen that this condition feeling or idea gets internalized by most children early in their lives. He was talking about a sort approved ways in which you are supposed to feel and think.

Now, that is his take. I mean I really do not agree with this, but the take was that you know when he thinks about playfulness, he feels intimidated by the idea and when he stated writing about it instead the memory of the death of his grandmother loom large and in fact, this memory made him realize that he was expected all the time to function within a certain pattern of socialization process approved emotions and therefore, this particular statement is made in the context of this other tragic memory that intruded, but without a sense of the tragic sort to say. So, this is what he has to say more often than not. I have seen that this condition, feeling or idea gets internalized by most children early in their lives. So, as to become almost natural for me, the chasm between an externally foisted feeling regimen and the relatively more organically bred internal one was quite wide even than it braked with a great sense of bewilderment and a bit of guilt.

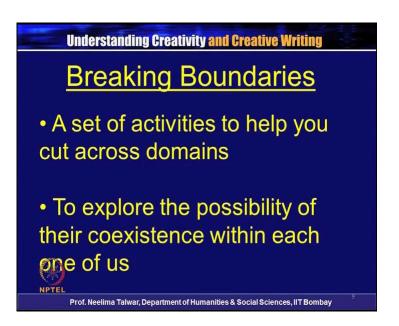
I remember seeing traces of that chasm in the other kids around me as well, but they chose to feel sad. Something I could not. Another issue that cropped up after having written this piece was the missing element of playfulness. I struggle with different definitions of play and try to adapt this experience to some definition of a lack of innovation, but I fail to convince myself. So, this is to sort point out that these are not easy areas when we began to dip into our own personal frame of reference. These are not easy areas to really pin down, describe and come to an agreement on, but I still maintain that the childhood exercise or you can even call it in fluency exercise. If you can go back that early in your memory, I think it is a fund house of enormous amount of energy and it can really yield much in terms of whatever creative area we want to plosive. What it can also do is to take us out of our own immediate sense of self and we can also began to critically watch children everywhere and I think it has a lot of lessons in terms of human nature.

I would not go into theories about playwright. From play to on word, this is been an idea that has been mapped, that has been articulated, discussed as a very fundamental human tendency play game. All these have been theorized about and the theoretical formulations whether they are from psycho analysis or anthropology or sociology. We will look at

those later on briefly to clarify you know our own thought processes, but at this point in time, this remains an open ended exercise and open ended exploration not trying to mind you to a specific way, but you could try out. I mean sometimes it is possible that the notion of play may not be accessible because in fact, one is socialized not to give value to play. That also can happen all right from play. We now are moving to another kind of play and that is linked to three different domains which I would like you to dip into sports, science and arts.

Now, what do I mean by the use of the term play and these three domains. So, again as I said play requires certain amount of flexibility, certain kind of looseness of being, so that you can let go a little bit ends. You are right I am giving for this activity.

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So, now two things her I will propose a set of activities to help you cut across domains. The term domain as I had pointed out earlier, it refers to certain you know widely accepted disciplinary boundaries that a currently practiced both institutionally and in terms of general discussions about different kinds of activities and the values we associated with them. The other thing that I have in mind is related to the possibility that I would like you to explore and I do not think it is a mysterious possibility, but it is a possibility of discovering the co-existence of different domains within yourself because again you know you may say that this comes from a certain kind of a utopian notion about childhood, but every child you know if you see children at play, they are scientific

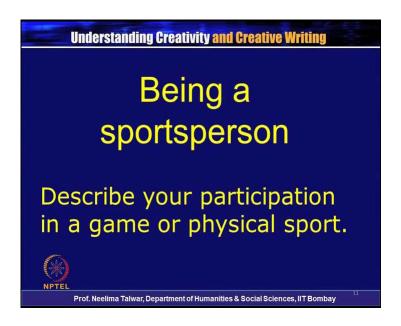
in their analysis. You know they establish causal links. They also play games. You know this role play is also creation of new roles and in that sense, I feel that all of us definitely very clearly have the scientist, the artist, the sports person in you.

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Also, what this can do is to help you discover the activity that you enjoy the most. So, now two words are emphasized in this discussion. One is the notion of play and the other is the notion of enjoyment.

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So, now, they are ready for some playing around in India or in the ancient usage. The word play is also Leela. You are ready for some Leela, some play. So, now, even if you have not played games and when I was conducting this activity, it became very clear to me that there is a gender, there most of the boys in the class course for ready to sort of talk about some well defined sport which means it is a game with rules and regulations and that they play really frequently, but the girls in the class, they took some time to even remember what kind of sport they played and I wanted some kind of physical sport of course, but you can have other kind of sport like chess etcetera which does not require physical effort, but I was hoping that they would choose something that requires physical effort because I was trying to pitch it against the nature of enjoyment in more abstract activities. So, that was my sort of agenda you can say, but there was certainly a gender divide. Although, I myself really have played sport right from earlier childhood stages, but I think there is for obvious reason, there is a gender divide may be able to talk about it later. So, now whether you are a boy or a girl, play a game if you have not played the game and then do this exercise.

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Some of the suggestions that can help you recreate the joy and demands of play. May be later on, even the theoretical angles can be woven in other modules. I will have to wait and see how this plays out. So, now, think of this particular sport that you have participated in. Obviously, they will be some time lag between what you have played and what you are going to describe. So, doing and showing these two things you can keep in

mind. Again remember, we have asked you to maintain a diary. We have asked you to note down your observations, we have asked you to dip into your experiences and retain really well developed frame of reference for yourself. So, keeping in mind are you know suggestion that you maintain this diary. This is a writing process, but it is also a process of doing one by playing the sport that you are describing and to then describing it. So, to show what happened to describe what happened and so in terms of this activity, we would like you to describe the locale the game itself and its roles. Now, you do not have to sort of do this point by point, but in your write up, you can keep in mind some of these suggestions.

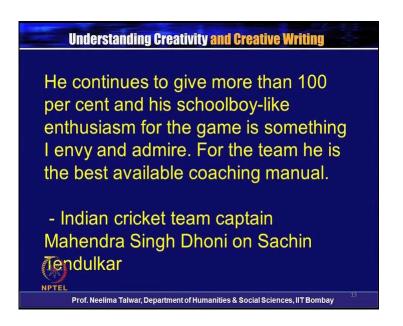
Now, while playing this game, how did enjoyment occur? So, again there is emphasis on the term enjoyment because we are trying to figure out the sources or the places or the conditions which release a sense of joy in you. That is why, although we value diversity and also different sensibilities, but let us try and do if indeed there are situations and activities that lead to a certain sense of enjoyment. Now, you may that the term enjoyment itself is a contested term, we do not know what that means. Let us start with the simple meaning of the term something fun, something that you like it, makes you feel good. So, let us stay with those simpler definitions.

We can have more complex discussions later on when we deal with some theoretical formulations about enjoyment in the next lecture sort formulations preferred by a theoretician, whose name is Shiksant Mihai. So, then how did enjoyment occur also describe how excitement peaked, how often do you practice, how long have you been playing the game describe a great feet in that sport. Now, this may kind of surprise you this last idea as to why one would sort of ask you to describe a great feat in that sport. I think the idea stems from the fact that you know when we like a sport or we like an activity usually we also are greatly inspired by great achievements in that field. Now, this may again be a contestant way of looking at this issue, but I feel that you know it without having role modules; it is really very difficult to aspire to be a better player.

You know many times in sports, the coaches, they ask their young enthusiasts to watch some very good players at work and that is part of their coaching. So, just to watch, just to see how they play and so on and so forth. So, therefore, this is close to the idea of you know canonize or classic writing you know in terms of reading, writing list also, but I think it would be fun to see dip into this and see if you can describe a great feat in that

sport. Now, how you construct that writer is your own decision? On that there are no limits, but these are the pointers that you could take in mind. You need not keep that in mind while playing because surely if this is you have you know great module in your mind, you will not be able to play like that great module, but you know in describing the feats, I think that will help. I am also leaving you on to the theoretical formulation of Shiksantmihai by doing this open ended exercise. So, it is really in some ways introduction to some of the ways in which Shiksantmihai later on theorized about enjoyment and how to optimize your sense of enjoyment, what are the optimal conditions for enjoyment.

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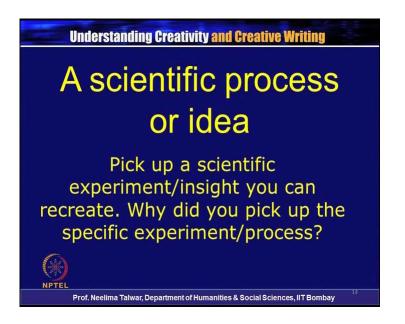


Here is this quote, right. Now, while we were recording the World cup had already happened and there was this whole atmosphere like the [FL] you know where the whole country was joyous and everyone well connected, everyone felt induced and therefore, it is quite appropriate to take an example from this contemporary situation, where a certain person is seen as an idol in the sport that most Indian seems to love, that is cricket.

This is a quotation from Mahendra Singh Dhoni on Sachin Tendulkar. I have been talking to students, I have been talking to my children, I have been talking to the teaching assistance who have participated in shipping, the power point presentations and also saw the discussion related to the content and there is this general agreement despite the diversity of people. I have been talking to that in deed both Mahendra Singh Dhoni

and Sachin Tendulkar have emerged as maulers role models for young Indians, not only for the sport that they play, but in terms of a way of life, a perseverance dreams, hard work, honesty, transparency everything that we actually need in our society. So, while we are separating the domains, the fact is that many times one domain begins to symbolize the aspirations of a country or people and in that sense, it does not remain confined only to that domain and what happens technically within that domain. So, that we can keep in mind, but let me quickly read this comment and not really digress any further. He says, Sachin Tendulkar continues to give more than hundred percent and his school boy like enthusiasm for the game is something I and we admire for the team. He is the best available coaching manual that is very eloquently expressed and I think both of the kind of I suppose feats and role models that you can dip into many of our students in the next exercise on Shiksantmihai. In fact, did write about Sachin Tendulkar that we may come to later on.

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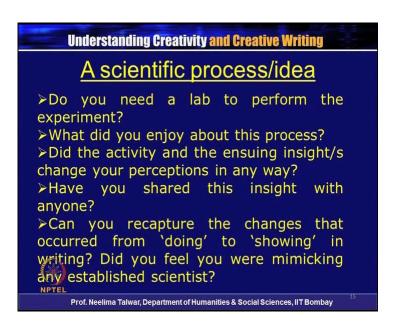


Now, about a scientific process or idea. So, I would say that it, before you start with this activity, you could actually ask yourself as to what kind of attributes you link to the term science and then take this up a later on specially. If you are a student of the finance or liberalist, many times the polarizations are so sharp that science is out there and art is out there. You know there sort of do not seem to, people do not seem to talk across the disciplines. So, please do not do that even if you feel you know nothing about advance science and we know very well that this is a very complex area, but even if you do not

know anything about it, ask very simple questions as to what kind of attributes do you associate with. If you have a problem with that, you can ask. If you know causal links when you observe a phenomenon whether they can be called a science you know a scientific way of looking at that particular phenomenon or not. In other words, do not stall this activity do the three domain activities at one go as a unit.

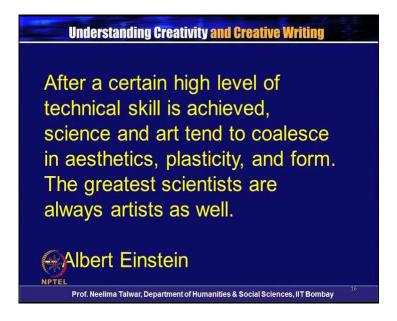
I think that will work out very well and it will also help us for ground some of the discussion or some of the important aspects of our discussion and I also think some kind of a sense that we need to change this polarized way of thinking about issues whether artistic or scientific or sports related, but more than that, it is within you that these three activities co exist.

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So, pick up a scientific experiment or insight you have that you can recreate. Why did you pick up the specific experiment or process? Do you need a lag to perform the experiment? What did you enjoy about this process? Again, what did you enjoy about this process? I am not asking if you enjoy this process because my feeling is that when you participate in an activity actively, then there is automatically certain amount of enjoyment. So, next pointer did the activity and the ensuing insight or insights change your perceptions in any way? Have you shared this insight with anyone? Can you recapture the changes that occurred from doing to showing in writing? Did you feel you were mimicking any established scientist?

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So, these are pointers. Play round with that and think of a great mind of our times who has nothing that the most extraordinary insights to offer. According to Einstein, after certain high level of technical skill is achieved, science and art tend to coalesce in aesthetics, plasticity and form. The greatest scientists are always artist as well. So, keep that in mind and move on.

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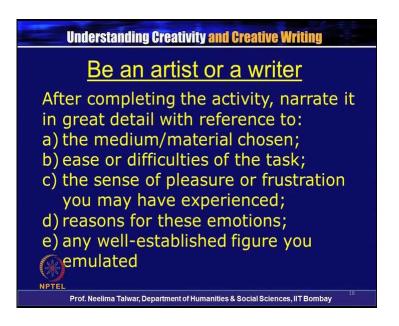


The last activity which you may several the last activity, last part of description was already the domain of the writer, but no, I actually would not like you to club those

together ideally. Now, role play as an artist or a writer. So, let us say if you are a scientist. Now, pretend that you are a writer. If you are a writer, pretend that you are a scientist. That is the kind of stretching over that I am asking you to do. Although, my sense that it may not be such a difficult thing. If you dip into your own definitions of what the scientific processes related to observation, empirical investigation, causality to begin with similarly foreign artist or a writer, you know that the whole focus of imagination on creating some you know fictional characters or creating recreating reality that is the aphesis.

So, play within the roles of the game mix and match can occur later on, but first you know keep them separated the way they are. Separated in actual life in terms of institutionalizations, but actually come back to the childhood stage where they are intermixed and then finally you can have a product where you inter mix it. That is the way I would ideally like this to work. So, now if it is an act of writing and not painting or something, even if it is painting or something I would like you to do this very rapidly.

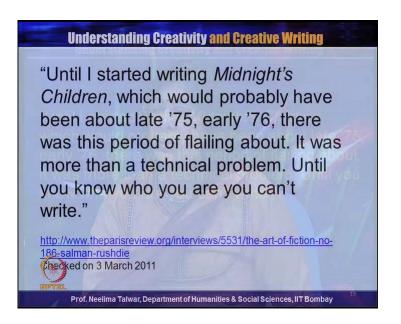
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After completing the activity, narrate it in great detail with reference to the medium or the material chosen, ease or difficulties of the task, the sense of pleasure of frustration you may have experienced. Do not you know undermine them, mention them reasons for these emotions. You know why did you feel fricative? Why did you feel pleasure? Any well-established figure you emulated cause everything said and done for writers also.

There are other writers who inspired them, who also in ways live within them because they have read them and enjoyed them so much that part of that writing, part of that worldview, part of that stylistic mechanism seems to circulate within ourselves. So, do that and I again want to dip into what Salman Rushdie had said earlier.

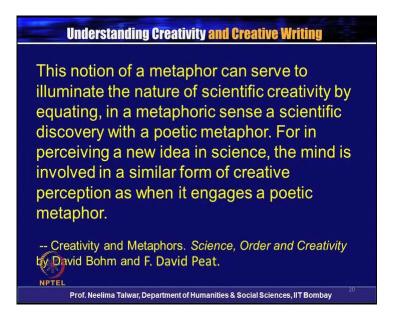
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I mean he had said it many years back, but we had mentioned this in our earlier lecture where he says, until I started writing Midnight's children, which would probably have been about late 75, early 76, there was this period of flailing about. It was more than a technical problem. Until you know who you are you cannot write. So, in case you have difficulties, this is really not something that you should worry about.

You can look at other writers and see how many of these issues may be related to your own search for your identity or your sense of self and in other words, this is searching module that we would definitely like you to consider when you write. Now, writing for us at this point in time is an exercise every one of you can benefit from whether you are scientist, potential of future, writer, student of literature, painting, design or sports. Also, we feel that this is a common activity or a basic activity that leads to greater self-analysis and self-analysis that can lead to productive results.

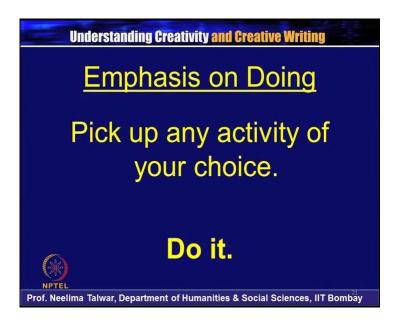
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This another quotation that I have placed before you and that is again related to certain crucial similarities between scientific and literary activities and the reason we have placed it here is related to the fact that this is a good opportunity for you to begin to think about the issues of certain common ground. I was talking about the absence of common ground for conducting discourse on creativity.

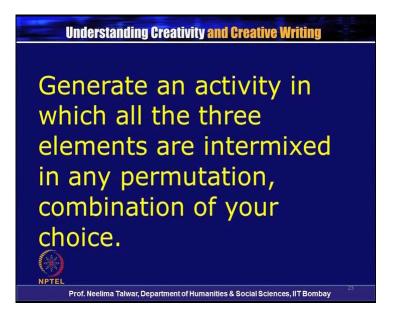
So, this provides a common ground. This is a very important quotations and I will quickly read this out. He says that the notion of metaphor can serve to illuminate the nature of scientific creativity by equating, in a metaphoric sense a scientific discovery with a poetic metaphor. For in perceiving a new idea in science, the mind is involved in a similar form of creative perception as when it engages a poetic metaphor. We would have to go into the nature metaphors and how they link to different kinds of objects or you know ideas and makes them into. Find similarities between two different kind of ideas or perceptions, but right now, we will not really going to it. Later we will conduct some metaphor related exercises.

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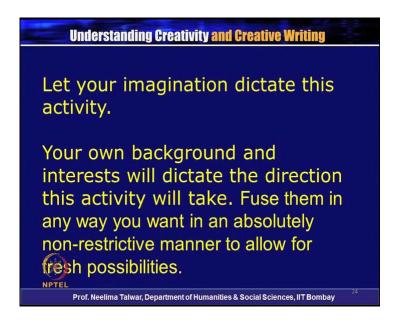
We will keep that in mind, but right now the idea is to really look at these three activities, and do something with them and map out or describe your experiences as clearly and as vividly as possible.

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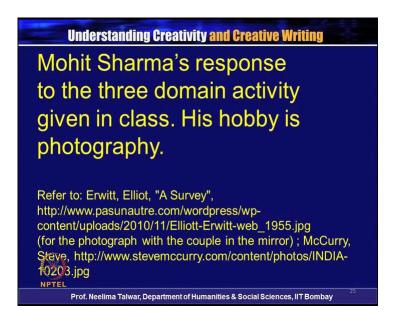
So, again this is what we are re-emphasizing finally. What you can do then after you know you have undertaken the activity separately? What you can do is generate an activity in which all the three elements are intermixed in any permutation, combination of your choice.

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Let your imagination dictate this activity. Your own background and interests will dictate the direction this activity will take. Fuse them in any way you want in an absolutely non-restrictive manner to allow for fresh possibilities.

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Now, we would have one of our students who has undertaken precisely this kind of a blend and I have also requested him to share his own creative endeavours, so that you can see how he has intermixed three domains in his writer and also his own preoccupation with creativity. This is a kind of starting point of his own search and what

he has done in the three domain activity is to fuse port with writing and in that sense, it is an intermix. You will hear him and see how that has unfolded so far as his concern.

Hello, I am Mohit Sharma. I will be talking about the three domain activity that we undertook as a part of this course. So, the three domain activity had three components which required us to talk about our experiences with sports a concept of science as well as an art form. So, for in the sport component, I took up the sport of table tennis which I have taken to quite recently for the scientific phenomena. I went back to this realization that I have when we first standard magnetics and realized that Newton's third law break some in the field of magnet to dynamics. As regards the art form, I will be talking about the art of photography.

So, they are sense of composition in photography. As the most other arts, it is a simplified and exclude every scene must be reduced to its very basic components and then analyzed. It gives you a sense of what truly gives a scene. The character that it has the signification comes relatively easily to me or so I would believe from the same grounding and reductions is approaches to problems. Also, I have been able to understand and internalize the technical knowledge of how camera works and how it should be tinkered with for different scenes and settings which are attributed to the environment I have been a part of for the last five years. Now, I would be gone to show you a few photographs and explain this component of it.

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So, as regards the reductionist approach in photography, in this particular photograph, I wanted to really focus on the reflection of the buildings in the water, but as you can see that really does not end up being central focus of this photography. We have a lot of sort of be clatter you know at the very top half of the photograph.

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So, I went in and this was the final result which came out far better that even I had anticipated it.

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This is some one of the masters of photography allured with note. How he has composed the scene? There is the water, there is sunset scene, there is a rocky beach of salts, but then there is also the human element involved and the kind of feelings that the entire scene provokes in humans.

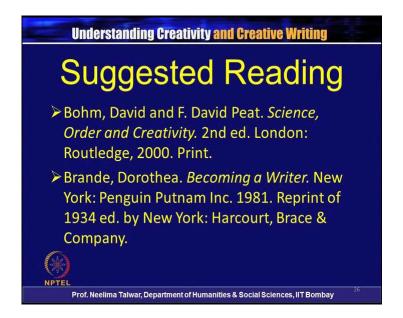
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Finally, this is a photograph from another celebrated photographer steamakari. Now, most of us tend to look at Taj Mahal in a very isolated sense, only for what it is. Any scene, any monument has its entire importance in what it means to the people around it. So, in a sense this placement, the fact that these train probe revolves from here, every day it might be discontinued now, but the fact that they did at that point in time, it gives a strange sense of completeness which would otherwise the breather missing from this photograph if it was only the Taj Mahal which was to be clicked.

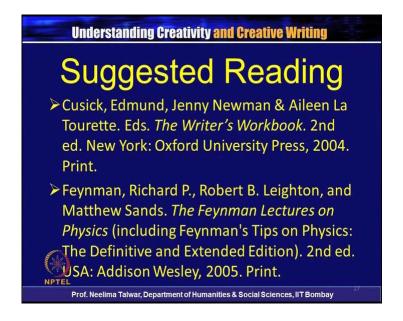
Thank you.

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Thank you Mohit for sharing your work. I am sure we will talk to you in other lecture modules also. Here is a suggested reading for the rest of you. Please use it selectively. Do not feel daunted by the list which is thought that it is appropriated to share it with you just in case there is particular angle that you want to understand better. So, will start with this book by Bohm and Peat titled Science Order and Creativity. This is a book I have really liked for a very long time and have used it extensively in number of courses that I have taught. So, that deals with metaphors and how that is a connecting link in the pros actual work of science and also literature. The second book is by Brande, Dorothea. Becoming a Writer and it obviously states its own case through the title itself.

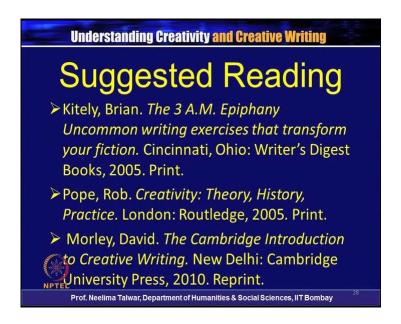
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Cusick, Edmund, Jenny Newman etcetera their book, The Writers Workbook is also very handy for people who have started to write. So, you know it is the kind of book one can use in very early stages of writing. So, you can selectively use it and especially for diary and also for exercises pertaining to one's own empirical work. You know observation of the world around and how one can begin to articulate one's ideas. I think it offers some very good tips.

The next book is by the famous physicist Feynman and that is a book of his lectures. There are lots of books that he himself has written that are read extensively. I think he belongs to this very special brand of great scientist who also have the ability to communicate the adjust of scientific concepts and also the pleasure in doing science to other people who are not necessarily involved in doing science about cons actually, and also in terms of the act of communication writings of many scientist in the last three decency. In particular, have really offered tremendous richness to the reader in general.

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So, the Feynman lectures and then there is this book by Kitely, Brian, The 3 AM Epiphany Uncommon writing exercises that transform your fiction. You can again have a look at some of the exercise and see what is useful for you. Rob Pope's book I really would like to recommend strongly for those who are theoretically sort of governed in their thought process. Each and every chapter is extremely well constructed and theoretically very deeply worked out. The chapter on play and notion of play as an alternative conceptual category for understanding creativity will offer you great deal of insight, but thus a book you would have to read gradually if you are not used to theoretical formulations within cultural areas.

The last book which is a recent one that has been published as you can see is edited or written by, actually it is written by Morley, David School. The Cambridge introduction to creative writing that also is full of very invaluable insights. I am able to endorse some better than the others because these I have started dipping into more recently, but that does not mean that others are not equally important and interesting.

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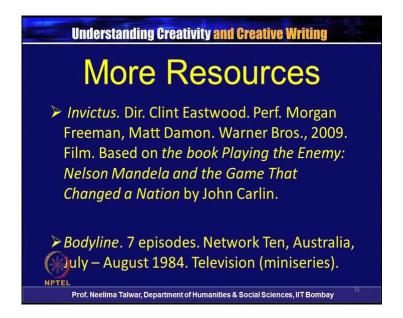
Some of the films you can look in terms of sports and its complexities are films that we have been looking at in order to be able to talk about sports games in naive simple child like manner, but at the same time, sort of keep in mind the complexities that they represent, but we have not discussed them with you. As a resource you can dip into them. Chariots of fire, Chak de! India. I am sure you know Chak de! India very well already. I heard that chant during the world cup.

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You know also Shatranj ke Khiladi is again a very interesting film where you know if you place Anand, the great champion against this story, you will see what that sport when it is taken to technical heights as a competitive sport. What that means? For Vishwanathav Anand on the one side and if you see the players of Shatranj or Chess in Shatranj ke Khiladi, the story by Munshi Premchand, you can see how this game can become so obsessive that rollers just indulge in this game without rolling the country. They led the intruding army's take over without any struggle or fight. It is a beautiful film and some of the scenes are memorable, scenes of chess players and the intruding armies.

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Invictus, directed by Clint Eastwood is really a remarkable film based on the book, Playing the Enemy: Nelson Mandela and The game that changed a Nation by John Carlin. So, we know that sports is now just about playing on the field, but playing in the minds of not only just the players, but also the nation for which they play and people at large. So, it is a very complicated relationship. The next reference that we would like to endorse is the TV serial, Bodyline which you may be familiar with because most of you are cricket buffs. These are seven episodes you know produced by network Ten Australia. So, these are the recourses you can dip into and enjoy and you know also enrich your understanding of all the three domains.

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Finally, we would like to end with the quote from the famous and intriguing painter Vincent Van Gogh and these are the words we would like to share. If you hear a voice within you say 'you cannot paint', then by all means paint and that voice will be silenced.

Thank you.