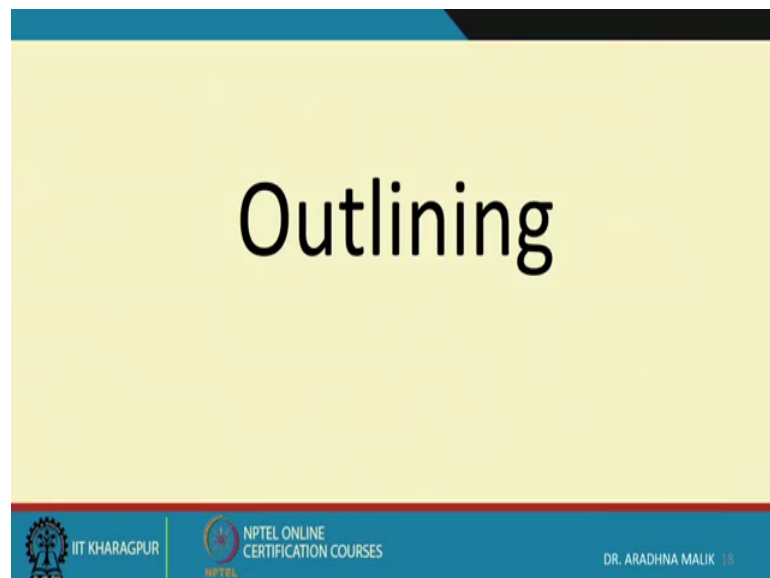**Research Writing**
Prof. Aradhna Malik
Vinod Gupta School of Management
Indian Institute of Technology, Kharagpur

Lecture - 14

Outlining

Welcome back to the MOOC course on research writing my name is Aradhna Malik and I am helping you with this course and in this class we are going to talk about outlining.

(Refer Slide Time: 00:21)

This week we are starting the discussion on writing per se specifically writing. So, we are going to talk about how we start on this big project called a research paper or a research report.

So, we start with getting our thoughts together, in a previous lecture we had discussed about generating ideas. Now what do we do with that all those ideas that we have generated. So, let us talk a little bit about outlining ok.

(Refer Slide Time: 00:50)

Components of Effective Outlines (Purdue OWL)

- Parallelism: Each heading and subheading should preserve parallel structure. If the first heading is a verb, the second heading should also be a verb.
- Coordination: All the information in Heading 1 should have the same significance as the information in Heading 2.
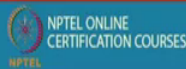
Components of effective outlines; what are the components of good outlines or of outlines that can really help you? The first component is parallelism which means each heading and subheading should preserve parallel structure, if the first heading is a verb the second heading should also be a verb. So, the way you write the outlines should be consistent excuse me.

The next component is coordination. All the information in heading one should have the same significance as the information in heading 2. So, outlines consist of these broad headings or broad classifications of ideas. Now we must classify the ideas in such a way that the different headings have the same significance the different subheadings have the same significance and so on.

(Refer Slide Time: 00:43)

Components of Effective Outlines (Contd.)
(Purdue OWL)

- Subordination: The information in the headings should be more general while the information in the subheadings should be more specific.
- Division: Each heading should have two or more parts
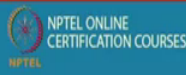
Then, subordination the information in the headings should be more general while the information in the subheading should be more specific. Division each heading should have two or more parts.

So, when we talk about headings, sometimes I mean again this is not a diktat or you know of confirmed rule per se, but it is helpful if each heading can have two or more subheadings so, that you know your thoughts can get organized; however, when you when we write more complex documents sometimes this may be possible sometimes this may not be possible, but we should try to break up our thoughts and to give a direction to our thoughts.

Now, I will give you an example, I was discussing this with my research scholar if he if he listens to this lecture, he will have a hearty laugh because I am using him as an example. He has the habit of reading everything understanding everything very very passionately getting into the heart of things understanding them and then writing about them, he just pours his heart out on paper. So, what he does is, he will collect all these thoughts and then he will start writing and that is what I encouraged him to do. Because that in that way you do not miss out on anything. So, I said first writing you just pour your heart out on paper and then organize later.

Now, when it comes to organizing later, that is where he seems to find it a bit of a challenge to that. What we did in that case was I told him that now what we will do is and we will discuss this in the last part of this lecture; we will do what we call as a

reverse outline. So, I said you first pour your heart out on the paper and then you give you try and read everything you have written from a fresh perspective and tell me what this paragraph is talking about, what the sentence is talking about.

So, thinking of the category is that different parts of his paper could belong to. So, that is what an outline does for you. It helps you channelize your thoughts into different categories, you can have you can start with an outline which means you already think of different directions your thoughts could take, and then probe in those directions further. So, you divide up your thoughts and say I am going in direction a now, I am going to take a you know go on a road journey from Calcutta to Northern India.

When we talk about Northern India, northern India could have could be anywhere between say Delhi and Jammu and Kashmir or maybe north-eastern India. So, you just take that road journey. So, you are going you travel in one direction, now and when I go to the northeast what all do I want to see? I could see Northern Bengal I could see Sikkim, I could see Arunachal Pradesh, I could go as far as Nagaland or Tripura. So, when I talk about north-eastern India I am just taking one road. So, I break it up and that becomes the subheadings, then when I reach say or I go to Assam and then when I go to Assam maybe I want to go to different places in Assam. So, those become the sub subheadings ok. So, it is not only Assam, it is not only Guwahati, I also want to go to other places in Assam.

Similarly, for Arunachal Pradesh, I reach Arunachal Pradesh and then I want to see the different places in a Arunachal Pradesh. Similarly for Nagaland I fly into the Manipur now what do I do from there. So, I want to take a road trip to Kohima, I want to go into different other you know the different tribal villages. So, that is what we are talking about here, you take the main road the main journey is the direction is that I want to visit north-eastern India, then from then on the subheadings or the headings would be say Sikkim Arunachal Pradesh, Nagaland Tripura. So, I go to different places there and then I break it up I break up my journey. So, that is what we are talking about here you divide up your thoughts and then you specify, what exactly it is that you want to study.

Then why should you create an outline? An outline aids in the process of writing it gives you a skeleton, it gives your direction. It helps you organize your ideas it presents your

material in a logical form a skeleton is formed and you start filling in that skeleton with meat ok.

(Refer Slide Time: 06:20)

So, that is what an outline does for you. It shows the relationships among the ideas in your writing. So, when you break up the different parts, then the relationships of different ideas can be established through your outline or there they become visible through your outline. It constructs an odd ordered overview of your writing .

And it defines boundaries and groups it tells you where not to go. So, just taking that example of traveling northeast from Kharagpur, I know that say maybe Arunachal Pradesh is as far as I can go, I cannot go into I cannot cross over into Tibet or China. So, or when I go to the far northeast I go up to Nagaland and then I know I cannot cross over into Burma. So, that is where the boundaries are, this is where this is as far as I will go all right. So, you know exactly where you want to go and how far you want to go, what do you want to limit the scope of your work to.

(Refer Slide Time: 07:22)

How do you create an outline?

http://www.bestessaytips.com/developing_outline.php

- Determine the purpose of your paper
- Determine the audience you are writing for
- Develop your thesis/ problem statement and research questions

Brainstorm: List all the ideas that you want to include in your paper
Organize: Group related ideas together
Order: Arrange material in subsections from general to specific or from abstract to concrete
Label: Create main and sub-headings

IIT KHARAGPUR | NPTEL ONLINE CERTIFICATION COURSES | DR. ARADHNA MALIK 22

How do you create an outline? you first determine the purpose of your paper find out why you are writing your paper then determine the audience you are writing for, find out who is going to read your paper which article you are submitting it to whether you are writing it for your you know as a progress report for your dissertation, whether you are writing a journal paper to submit it into a for submission into a an academic peer-reviewed journal or whether you are writing as an expert who are you writing for?

Then develop your thesis or problem statement and research questions. So, you develop your idea, you say this is what I want to probe further into and then you say this is these are the questions I am going to ask. Now in order to do that you need to brainstorm, we talked about brainstorming in a previous class you list all the ideas that you want to include in your paper then you organize you group the related ideas together.

Then you arrange the material in subsections from general to specific or from abstract to concrete. So, I want to travel to the northeast I want to go to Assam, I want to go to Nagaland, I want to go to Tripura, I want to go to Arunachal Pradesh and so on. So, I want to go to Sikkim. So, I those are the broad headings. So, these are the sec subsections then within those subsections, then you list the districts that you want to visit within each of those states ok. So, you arrange the material in the subsections.

Then create main and subheadings ok. So, then the main headings with it would be the names of these states, the subheadings would be the names of the districts you want to

visit within each state, and the sub subheadings would probably be the district headquarters or the towns you want to visit within each district and so on ok.
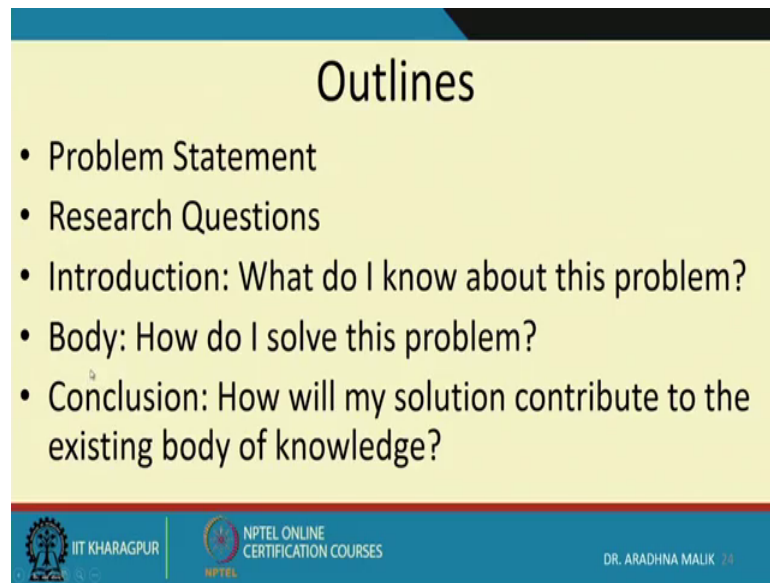
(Refer Slide Time: 09:22)
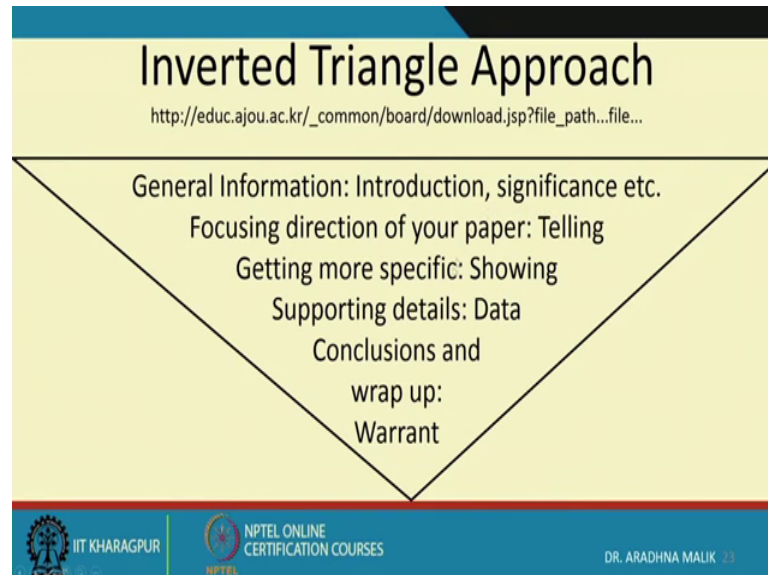
The inverted triangle approach helps you go from space from general from a general thought to a specific idea how do we do this? You write down the general information you have about a particular topic, you start with the introduction what are you talking about, why is it important etcetera. Then you focus the direction of your paper you start talking about a specific issue within that general information. Then you get more specific and you say this is what I was talking about and here are some examples to prove what I am talking about.

Then you give the supporting details and so, you say this is what I was talking about, here is the data you get into specific details. So, data point a b c d e and then you draw conclusions and you say ok. With all this data with the analysis of the data that I have collected, this is the conclusion I have drawn and that in turn helps me you know or that in turn relates to what I was talking about earlier, and then you wrap up and then there is a warrant or a claim and you say based on the analysis of the data that I have collected, this new knowledge has been created, and this is how it ties in with the previous knowledge that I started the discussion with.

Now, different types of outlines are there, we have in an outline you would have sorry in an outline you would have a problem statement, you would have research questions, you would talk about the introduction. So, you list the introduction what do I know about this problem, and you list it in points, the body would be how do I solve this problem, the methods the study of methods and so, you you write down the broad headings, study of methods study of quantitative methods, study of qualitative methods then the selection of the appropriate method, the sample size the. So, you know. So, you discuss all that.

Now, the procedure the timeline that was followed the actual procedure that was followed to collect the data, how do I or how did I solve this problem? Then you come up with or you have a conclusion or you could have a results in discussion section here before the conclusion you could have a results in discussion, based on the work that I did I this is what I found and this is how what I found relates to what I was talking about earlier, this is how what I found makes any sense, and then you wrap up how will my solution contribute to the existing body of knowledge.

Now, what do I know about this problem? How do I know that this problem exists? So, you need to describe that, how do I know that a problem exists you will find that out through a study of the literature what do I know about the importance of this problem? Why should I spend time finding a solution to this problem? So, you need to write down all of that.

Then what is the scope of my suggested solutions to this problem, what specific percentage of the problem will I be able to solve and why? All of this the points the most crisp information about this will go into your outline.

(Refer Slide Time: 12:54)

How do I plan to or how did I solve this problem? The methodology, the results, the discussion of the results in light of the objective or problem statement all of this will be listed in your outline.

(Refer Slide Time: 13:09)

How does my solution can contribute to the existing body of knowledge? So, in this you will again revisit the significance; why did I spend so much time and so many resources finding a solution to this problem?

So, you talk about the significance, was I able to fill the gap in the knowledge base that I set out to fill how or how not, why or why not. So, you talk about the limitations, I thought I would run a 100 meter race; however, I was only able to run for 80 meters, I thought I would go as far as Nagaland; however, I was only able to cover Sikkim and Assam and Arunachal Pradesh I could not reach Nagaland. So, those would be your limitations why was I not able to drive all the way to Nagaland ok.

So, how does my solution provide a stimulus for the generation of more insights into my area of research? These would be your future directions and that would then again be covered in the points for your outline for your conclusion ok.

(Refer Slide Time: 14:13)

Now, different types of outlines are there, you could have alphanumeric outline which would which could contain roman numerals, capitalized letters, at Arabic numerals, lowercase letters etcetera you could have full sentence outlines. So, you could actually have outlines where you could write full sentences instead of just the main points, you could write full sentences full statements that describe what is to follow or what needs to be included and you can have decimal outlines where you have sections and subsections and so on.

So, depending on what you are writing about, you could cover all of this in your outlines ok. The problem statement, research questions, body conclusion all of this could be covered in your outlines and here in these different types of outlines ok. So, these are some guidelines that are there.

(Refer Slide Time: 15:09)

Now, reverse outlining is something that I was telling you about you pour your heart out on the paper, and then in the left hand margin write down the topic of each paragraph. When you are working on the computer you could use the track changes button or the review section and then you read one paragraph and then you say what is this paragraph talking about. So, you write down the heading of the paragraph above that paragraph, provided and assuming that the paragraph is really talking about one issue, if it is talking about several issues then you might need to break it up ok. So, write down the topic of each paragraph or each set of statements that you have made. Try to use as few words as possible, when reading these notes should work as quick references for future study or in class discussion.

Then when revising your work these notes should tell you if each paragraph is focused and clear. So, when you are writing this is what I was telling you about my student has a habit of pouring his heart out on paper, which is very nice because he does not miss a single thing and he does extensive research. However, many times when you are so, passionately writing you tend to combine several things.

So, what I did was I took his document and ripped it apart not physically, but conceptually I went through his document, and I said what is this paragraph talking about. This paragraph is talking about this particular aspect of your research, this paragraph is talking this paragraph is answering maybe you know what how many types of automotive manufacturers there are or what is the rate of growth of these automotive manufacturing companies.

So, in some places here just mentioned that the industry is growing this much and the industry has grown this much. So, I said all you are saying is you are only talking about the rate of growth of automotive industries and nothing else. So, you know. So, those are the headings I gave to his work and today he asked me if he could really you know follow up on what I had done and I said absolutely because that is a reverse outlining procedure when somebody looks at your document from a fresh eye then they will get to see it, but you can do it yourself also ok. So, you you break up whatever you are talking about.

In the right hand margin write down how the paragraph topic advances the overall argument of the text. Again be brief, when reading these notes allow you to follow the logic of the essay making it easier for you to analyze or discuss later. So, on the left side you write down the main headings and on the right side write down how this heading relates to the overall picture of your essay ok.

When revising your own work these notes should tell you if each paragraph fits into the overall organization of the paper, you may also notice that paragraph should be shifted after completing this step. So, after you have completed this step, you will realize that you have talked about one aspect or one subheading in say place A, you have talked about another sub subheading in say place B and so, after you have made these these sort of notations, then you might want to shuffle the work that you have or shift some of the work that you have done to different places and it helps you in organizing your work. So, this is all about outlines, now we will discuss some more about how you write how you create meaning in another class.

Thank you very much for listening.