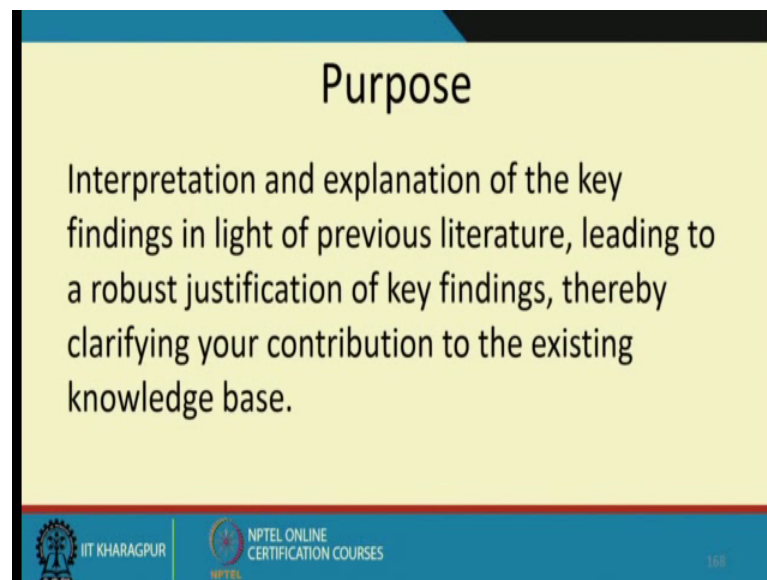


Research Writing
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Lecture – 21
Discussion of Results

Welcome back to the MOOC course on research writing. My name is Aradhna Malik, and I am helping you with this course. In the previous class we discussed the presentation of your results. Now in this section we are going to talk about interpreting those results in light of the previous literature.

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So, we are going to talk about discussing your results discussion of results; the purpose of this section is to interpret and explain the key findings as a result of the procedure you have followed, the output of the method you have used in light of previous literature, leading to a robust or a solid or a sound justification of key findings. Thereby clarifying your contribution to the existing knowledge base.

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Significance
(<http://libguides.usc.edu/writingguide/discussion>)

- Highlighting the researcher's ability to critically think of the problem at hand
- Justifying the researcher's contribution to the knowledge base
- Highlighting the importance of the study
- Forming a base for future research

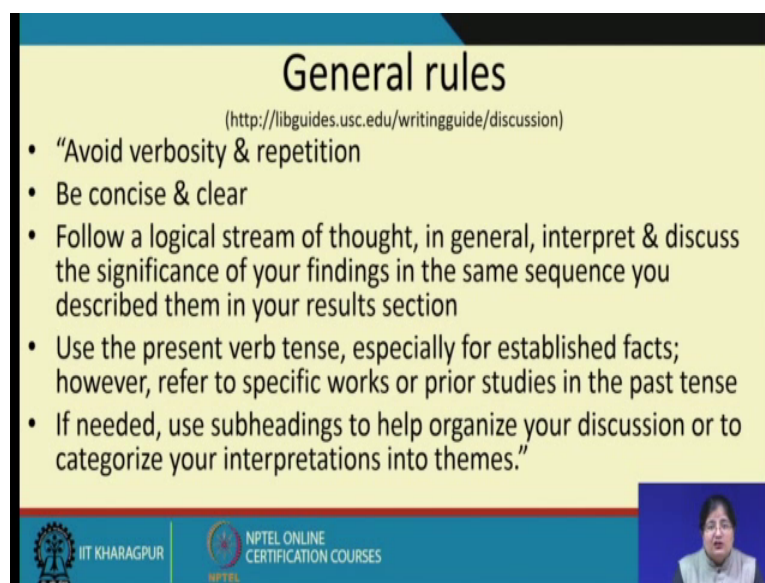
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The significance of this section is to highlight the researchers ability to critically think of the problem at hand. So, this section helps you or this section proves helps the writer prove that research writer proved to the reader, that the researcher is able to think critically of the problem that he or she has taken up. And then this section also helps justify the researchers contribution to the knowledge base.

So, in this section what you do is you take your results and explain them in light of the previous literature. Thereby, helping justify or justifying your contribution to the existing knowledge base. When you send a paper for publication, many times you may think that you have done something good, but many times the reviewers come back and say ok. But what is your contribution? Whatever you have said is probably already known and so and so. Has already said it and so and so, has already said it what is your contribution. So, you come up with your contribution.

It is also to highlight the importance of the study, you said this is what I found out, this is how what I found out is important in light of the existing knowledge base. And this is how it forms the basis of future studies, and that is why it is important. It forms a base for future research. So, you highlight the importance. You also explain how whatever you have studied or whatever you have found out, forms the basis for future research ok.

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General rules
(<http://libguides.usc.edu/writingguide/discussion>)

- “Avoid verbosity & repetition
- Be concise & clear
- Follow a logical stream of thought, in general, interpret & discuss the significance of your findings in the same sequence you described them in your results section
- Use the present verb tense, especially for established facts; however, refer to specific works or prior studies in the past tense
- If needed, use subheadings to help organize your discussion or to categorize your interpretations into themes.”

The slide features the IIT Kharagpur logo and NPTEL Online Certification Courses branding at the bottom. A small video inset in the bottom right corner shows a woman speaking.

Some general rules, avoid velocity and repetition. You will be tempted to repeat a lot of things. Many times, you see that there are overlaps in the different sections of your paper. For example, the research question appears in chapter one in the introduction. You provide an understanding or you provide an introduction to what you are going to talk about, you write your research questions.

In the literature review you tie everything with your research question in the methodology section, you tie everything with your research question in the method in the results section, you take your research questions, and tie in the results or you say ok. This is how this as a result of trying to find out an answer to this question, I have found out x or y or z.

Then in the discussion of results again the research question will be repeated again and again. But many times, we also have a tendency to repeat whatever we may have stated either in the analysis, subsection of your method section, or in the results section of your document. Many times, that does not need to be repeated. So, you need to be very precise very, very direct and you need to avoid repetition. Be concise and clear. Follow a logical stream of thought in general interpret and discuss the significance of your findings in the same sequence you described them in your results section. So, coherence is maintained consistency is maintained. Use the present verb tense

especially for the established facts; however, refer to specific works or prior studies in the past tense.

If needed use subheadings to help organize your discussion, or categorize your interpretations into themes. You would have used subheadings in your literature section in your literature review section. You again use subheadings to thematize your findings, and you say this is how this set of findings make sense together. In the results section you just report your findings.

But what how what you do in the discussion section is that you pick these different findings you club them together on the basis of the similarity between them on the basis of the connections between them, you present them as a whole as part of the same group of findings. And you categorize your interpretations into themes.

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The content

(<http://libguides.usc.edu/writingguide/discussion>)

- “Explanation of results
- References to previous research
- Deduction: General application of results
- Hypothesis: Foundation for future research”

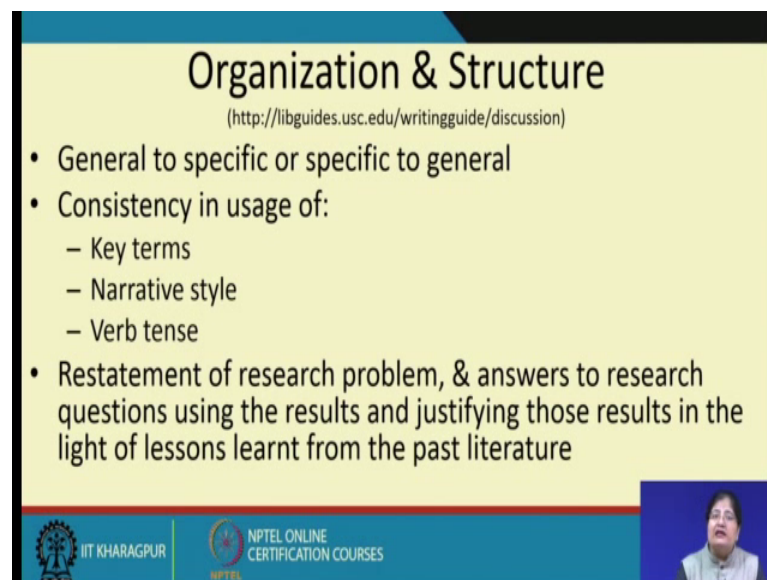
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What you include in this section, again this is from that web from the website put up by university of southern California. You explain your results. You provide references to previous research. So, you take the key findings, and you explain them in light of what previous research may have said this. For example, you say I have found out x; however, literature when faced with the somebody else some other researcher when faced with the same question found out y in a different context. I my results revealed x as the answer to the same question. And the reason that my results you know I found out x as a result of

asking this question using the same methods is, that the context was different may be the way the methods, were used were different may be the sample size was different etcetera.

So, you provide references to previous research. You deduce you provide a general application of the results. And you form a hypothesis you say, this is how whatever I have found out, can aid in further contributions to the knowledge base.

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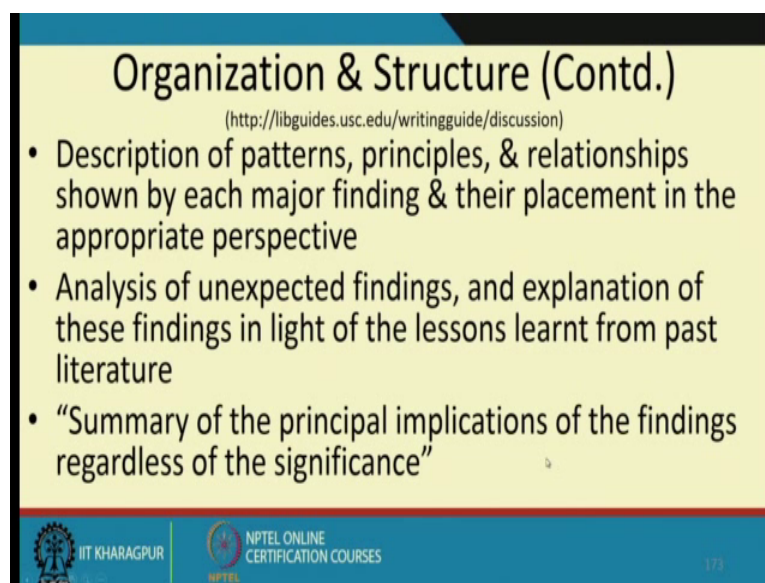
Organization & Structure
(<http://libguides.usc.edu/writingguide/discussion>)

- General to specific or specific to general
- Consistency in usage of:
 - Key terms
 - Narrative style
 - Verb tense
- Restatement of research problem, & answers to research questions using the results and justifying those results in the light of lessons learnt from the past literature

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Now, you could organize your discussion from general to specific or specific to general. You must be consistent in your usage of key terms that you use throughout your document narrative style what kind of style you use, and the verb tense in a specific section we will come to which tenses to use in which section in a later lecture or in a later part of this course. You restate your research problem and the answers to research questions using the results and justifying those results in the light of lessons learned from the past literature.

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Organization & Structure (Contd.)

(<http://libguides.usc.edu/writingguide/discussion>)

- Description of patterns, principles, & relationships shown by each major finding & their placement in the appropriate perspective
- Analysis of unexpected findings, and explanation of these findings in light of the lessons learnt from past literature
- “Summary of the principal implications of the findings regardless of the significance”


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You describe patterns principles and relationships shown by each major finding, and their placement in the appropriate perspective. You analyze the unexpected findings, in light of the previous literature, and explain these unexpected findings in light of the lessons learned from the past literature.

When you go through your literature, you will find that many times the researchers that write these papers, will tell you why they came up with particular findings. If your findings are different use their reasons for finding out their findings, and use those reasons and use their logical their logic and the literature they may have reviewed to justify why your findings went in a different direction.

Summarize the principle implications of the findings regardless of the significance. Sorry, it is summarize the practical implications of the findings regardless of the significance, sorry overall objectives.

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Overall objectives
(<http://libguides.usc.edu/writingguide/discussion>)

- “Reiterate the research problem/ State the major findings
- Explain the meaning of the findings & why they are important
- Relate the findings to similar studies
- Consider alternative explanations of the findings
- Acknowledge the study’s limitations
- Make suggestions for further research”

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You reiterate overall objectives or this section are you reiterate the research problem you state the major findings, you explain the meaning of the findings and why they are important. You relate the findings to similar studies. Consider alternative explanations of the findings and acknowledge the studies limitations, and make suggestions for further research on the basis of this section.

Different journals different universities different colleges prescribe, what needs to be included in different sections, I like the limitations and the directions and the section the subsection on directions called titled directions of future research to be included or at least the details of these to be included in the conclusion section. But depending on on the norms followed in your own institute of higher education, you might want to include this in the discussion section.

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Problems to avoid

(<http://libguides.usc.edu/writingguide/discussion>); Bavadekar, 2015

- Restatement of results
- Introduction of new results
- Verbosity
- Overgeneralization

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Some problems to avoid, again this is from the the website that I was telling you about and a paper by Bavadekar. You avoid restating results, except when you are only taking the key findings and explaining them in light of the literature. You avoid introduction of new results. You state whatever you have to state in the results section please do not introduce new results in this section. Avoid being verbose, again this is being hopped upon, but I am telling you in IIT Kharagpur we have a page limit.

You may have done tons of research, but you have only 200 pages to put it all in and 200 pages includes your front pages, front matter and your references, and the total sum of whatever it is that you have presented. So, you have to present 6, 7, 8 years of work in a maximum of 200 pages ok. And the line spacing is also specified, I think it is one point 5 or or double spacing. So, that is how crisp you have to be verbosity needs to be avoided over avoid over generalization.

And so, you avoid restating your results, you avoid introducing new results, you avoid verbosity, and you avoid over generalization. Now that is all we have time for in this lecture we will continue with some more discussion on research writing in the next class.

Thank you very much for listening.