

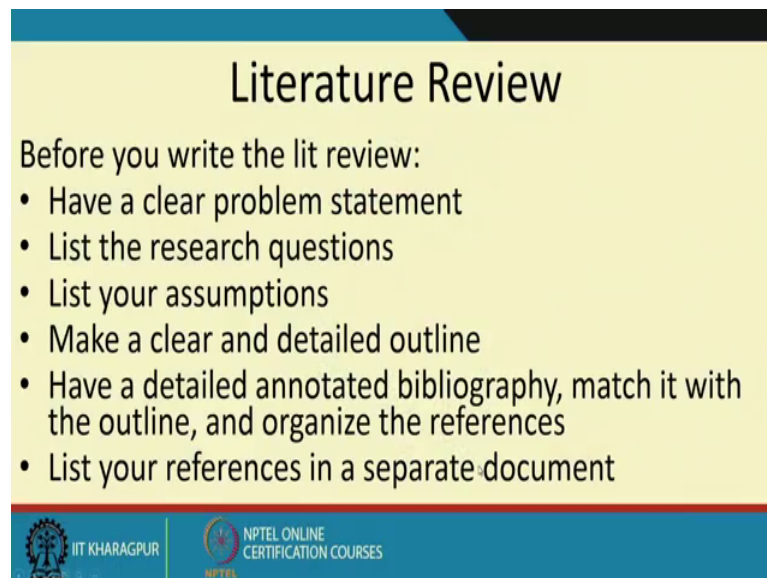
**Research Writing**  
**Prof. Aradhna Malik**  
**Vinod Gupta School of Management**  
**Indian Institute of Technology, Kharagpur**

**Lecture - 09**  
**Reviewing Literature (Contd.)**

Welcome back to the MOOC course on Research Writing. My name is Aradhana Malik and I am helping you with this course and we have we started with the module on literature review.

In the previous class, we talked about what literature review was and how you actually start keeping the records of your literature. Now in this class, we are going to talk about how you start reading, how do you take down your notes, what do you look for when you go through literature of any kind so that is what we will talk about. It is very very essential to know how to read in addition to knowing, how to write it is very essential to know what to read what to look for in any kind of paper. So, let us see what we have for you reviewing literature.

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**Literature Review**



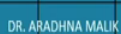
Before you write the lit review:

- Have a clear problem statement
- List the research questions
- List your assumptions
- Make a clear and detailed outline
- Have a detailed annotated bibliography, match it with the outline, and organize the references
- List your references in a separate document

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Now, before you start writing or before you start reviewing literature you need to have a clear problem statement, you need to know; what you are looking for you need to know; what it is that you want to find out in the previous class, we talked about this.

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Keeping Records of What You Read								
Date	Keywords	Database	Database specifications	Citation of downloaded matter	Author's take	Benefit to you	Limitations of the study	Questions that still remain unanswered
23 <sup>rd</sup> of Nov 17	Research writing	Google scholar	Full text articles available free of cost	Claire Aitchison & Alison Lee (2006) Research writing: problems and pedagogies, Teaching in Higher Education, 11:3, 265-278,				
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You know the table that I told you to make very very essential, it is very helpful. So, you need to know what you are looking for and we did an exercise where we look for information on how to I mean on research writing as a field now.

So, you need to know what your problem statement is you need to list the research question you need to list your assumptions, you need to make a clear and detailed outline you need to have a detailed annotated bibliography. So, this is the annotated bibliography this is the annotated bibliography here. So, you need to have a detailed annotated bibliography and then you need to organise your references you need to match it with the outline that you have then you need list your references in a separate document I will show you how each of these things is done very essential to keep the record.

So, you need to know first 2 or 3 things, you need to know what it is that you are looking for you need to know what you need to find answers to why am I doing it, what do I need to find answers to all these questions should be foremost in your mind when you are reading something and your assumptions and then you of course, and then you move on to physically doing the literature review.

Now, this as you read this is whatever I am presenting now is an outcome of personal correspondence with a senior professor at IIM Ahmadabad.

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**As you read articles using quantitative methods**  
(Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- “Note down the full reference
- Identify the purpose/ rationale/ justification
- Identify the research objective
- Identify what the answers to the research question(s) add to what is already known.
- Study the conceptual framework used. What constructs have been used, and is the justification for the use of these constructs to study the phenomenon of interest clear?”

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So, this is directly from that correspondence now and this is something you all follow, now as you read articles using quantitative methods as the primary method for research you; what you do is note down the full reference you first note down the complete reference as in here, this is a full reference. So, you note down the full reference.

Then you identify the purpose or rationale or justification you find out why the question that you that was attempted to be answered was actually attempted to be answered why did the author spend so much time looking for an answer to the question that here she asked. So, you find out why the paper was written why was the document written in the first place then you identify the research objectives how did the author go about answering the questions here. So, why research objectives what did he author want to achieve.

So, this is this what did the author what kinds of milestones did the author want to achieve in a quest to answer the questions that were asked here and then you identify what the answers to the research questions were and what did they add to what was already known. So, you identify again you will find all these information in the abstract excuse me. So, you identify what the answers to each of the research questions were and how they added value or how the added to what was already known researches about creating value or researches about adding to the existing knowledge base. So, what did they find out that was not already known earlier.

Then you study the conceptual of framework used what constructs have been used and is the justification for the use of these constructs study the phenomenon of interest clear. So, what has been studied what constructs what concepts have been used and in a an attempt to find out what you wanted to find out are the reasons for studying a abc concepts really justified or should you have studied some other constructs in order to answer the questions that you are trying to answer. So, you need to know whether the author really took the right approach in studying whatever the author was studying.

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**As you read articles using quantitative methods (Contd.)** (Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- "Identify the propositions developed through the conceptual framework & study their translation into relevant hypotheses. Is the operationalization clear?
- Identify the steps in the research design. If possible, use a flow chart to depict these.
- What were the methods of data collection used? Is the unit of data collection obvious? What kinds of data were collected?
- Are the data screening procedures described adequately?
- What were the techniques used for data analysis?"

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Then identify the propositions developed through the conceptual framework and study their translation into relevant hypotheses is the operationalization clear identify. So, you find out what the author was trying to study why the author was trying to study what the author was trying to study and was the were the propositions or whatever the author proposed in converted appropriately into the relevant hypotheses is the operationalization clear was the author able to convert the questions that here she wanted to ask or convert me the way the questions were being attempted to ask sorry can we please pause for a second I would like to do this slide again [FL], thank you.

So, now next is you identify the propositions developed through the conceptual framework and you study there translation into relevant hypotheses is the operationalization clear you find out, how this conceptualization has lead to proposition when we do quantitative method when we use quantitative methods we are trying to

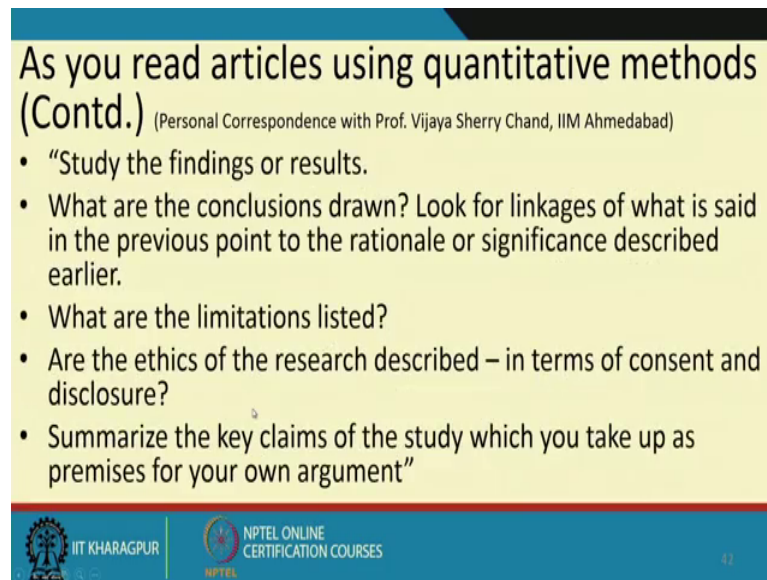
either predict something or forecast something or generalise something or becomes you know get some specific answers. So, in order to do that we need to have clear statement we need to have clear propositions now what you need to find out is have the concepts accurately lead to these propositions or not. So, that is something that you will need to study.

Identify the steps in the research design, if possible, draw a flow chart to depict, these what was the research design like what did the author do you know. So, you use a flow chart to depict the steps in the research design, then what were the methods of data collection used what kinds of methods were used is the unit of data collection obvious what kinds of data were collected, what was what did the author, how did the author go and find out whatever here she wanted to find out, what were the data points what were the units of data collection why were they selected, how were they selected and can you easily see from, what is presented as to what these units were are the data screening procedures described adequately.

So, when we go out and collect data we also find out whether the data make sense to us or not at times we need to filter the sense making data from the data that does not make sense which is purely information. So, we think, we have found the data that we were looking for and then we go through it, we evaluate it and then we realise that some of the data is useful some of the data make sense, but the other part of it is just pure information it is not real data that we can use for our study. So, you need to find out whether the screening procedure for selecting the sense making data are adequate or not and are the screening procedure described adequately is the method of filtering out this sense making data from the data that does not make sense clear or not.

What were the techniques used for data analysis. So, how was data analysed and why and what were the techniques that were used what methods were used to analyse the data.

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**As you read articles using quantitative methods (Contd.)** (Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- “Study the findings or results.
- What are the conclusions drawn? Look for linkages of what is said in the previous point to the rationale or significance described earlier.
- What are the limitations listed?
- Are the ethics of the research described – in terms of consent and disclosure?
- Summarize the key claims of the study which you take up as premises for your own argument”

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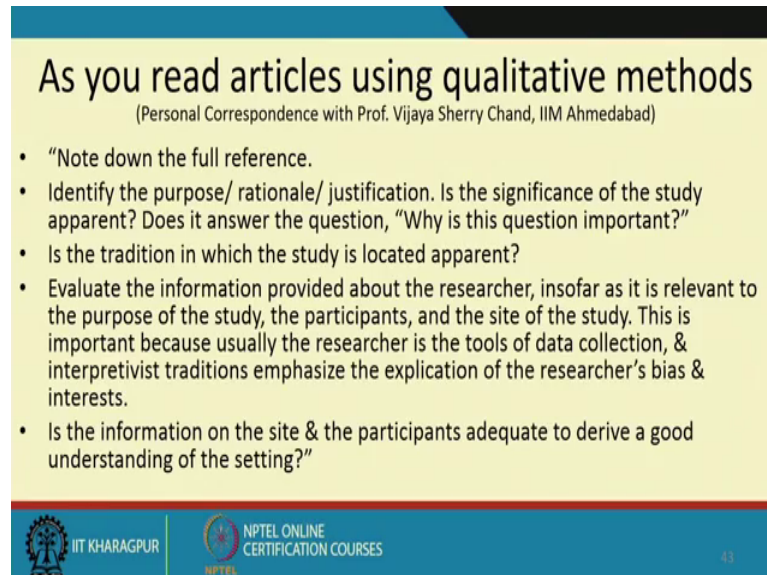
Then you study the findings or results what are the conclusions drawn look for the linkages of what is said in the previous point to the rationale or significance described earlier. So, what have I found out and why what I have found out make sense? So, that is what is covered in the discussion of results we will talk more about this as we move along, but you must study the discussion of the results, what have I found out as a result of this study how or how have the results been presented and how have the results been explained have they been explained light of the literature that was reviewed in light of the significance that was presented or not do they make sense to me or not.

What are the limitations listed; now when you are reading quantitative reports a significant number of limitations may be listed. So, what are these limitations do they make sense to you or not are the ethics of the research described in terms of consent and disclosure. So, if you're dealing with human subjects are we or any living beings are the ethics described or how has the data been collected has it been collected through ethical means or not and have these methods have been described or not.

Summarise the key claims of the study which you take up as premises for your own argument. So, after you have gone through all of these what you do you go back and you fill up this table and then you make a judgement based on all of these points as to you are reading the quantitative article. So, you understand whatever has been presented you make a notes and then if you decided to use that article then what you do you go back



and you do what we did in the previous class you write down all of these and then you move on.

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**As you read articles using qualitative methods**  
(Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- "Note down the full reference.
- Identify the purpose/ rationale/ justification. Is the significance of the study apparent? Does it answer the question, "Why is this question important?"
- Is the tradition in which the study is located apparent?
- Evaluate the information provided about the researcher, insofar as it is relevant to the purpose of the study, the participants, and the site of the study. This is important because usually the researcher is the tools of data collection, & interpretivist traditions emphasize the explication of the researcher's bias & interests.
- Is the information on the site & the participants adequate to derive a good understanding of the setting?"

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Now, as you read articles using qualitative methods again you could have I hope the people who are undertaking this or who are who have joined this course know the difference between in qualitative and quantitative research this discussion is outside the preview of this class. So, I will not do much about on it; however, if you want more details I have a previous course which is freely available on YouTube, it is called qualitative research methods and there is a section there that talks about the differences between qualitative and quantitative research methods. So, you can go through those lectures also anyway so.

When you are reading articles that have used qualitative methods what you need to do is you need to note down the full reference as you read previous type of articles and then you identify the purpose on rationale or justification is the significance of the study apparent does it answer the question why is this question important. So, you find out what the significance of this article was is the tradition in which the study is located apparent.

So, again when we talk about qualitative research methods we have variety of traditions that we approach from. So, is that tradition apparent or not evaluate the information provided about the researcher insofar as it is relevant to the purpose of the study the



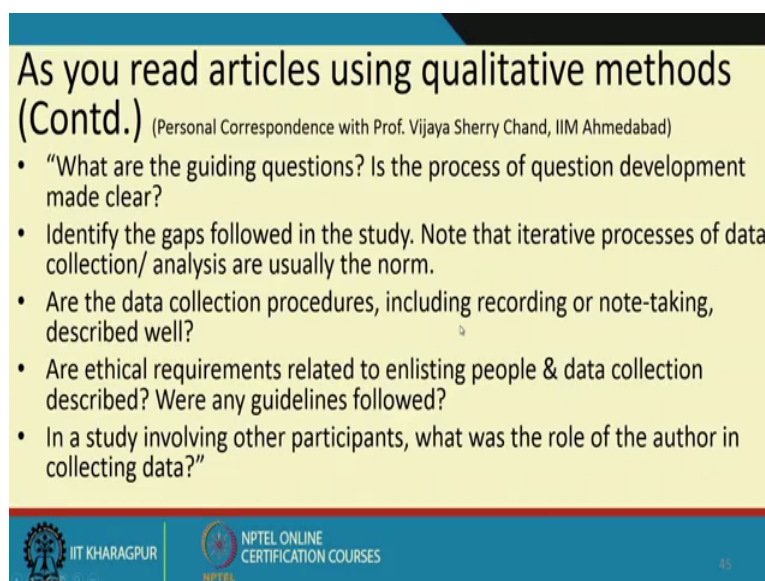
participants and the site of the study this is important because usually the researcher is the tool of data collection and interpretivist traditions emphasise the explication of the researcher's bias and interest. So, the researcher is a tool of data collection you go out and you collect the data and you interact with the data and that in turn influences how the data is captured and what is kept with you and what is left behind.

So, since the researcher himself or herself is the tool data collection is very very important to evaluate the information that is provided about the researcher it is very important to list the biases the assumptions that that may have crept in to the collection even at the point of collection of data. And again that is part of qualitative research we acknowledge that as an integral part of qualitative research a good qualitative research dances between his or her own interaction with the data and the influence of his or her own interaction with the data on the data itself and being an objective researcher observing things from completely you know completely divorce from the situation. So, that happens in qualitative research.

So, is the information on the site and participants adequate to derive a good understanding of the setting? So, the information is the information where you have collected the data from and the participants adequate to derive a good understanding of the setting are you able to understand what is going on based on what you have interpreted from this setting or not. So, we are talking about you reading an article that uses qualitative researcher; excuse me.



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**As you read articles using qualitative methods (Contd.)** (Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- “What are the guiding questions? Is the process of question development made clear?”
- Identify the gaps followed in the study. Note that iterative processes of data collection/ analysis are usually the norm.
- Are the data collection procedures, including recording or note-taking, described well?
- Are ethical requirements related to enlisting people & data collection described? Were any guidelines followed?
- In a study involving other participants, what was the role of the author in collecting data?”

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Then what are the guiding questions is the process of question development made clear again when we talk about qualitative research we do not immediately start a research questions the questions develop the questions evolve as a result of this continued going back and forth you know into the data setting. So, it is an iterative process we do not really start out with firm questions and then pause it hypotheses and then go about either defending them or opposing them here in qualitative research the process of development of research questions also takes up a significant amount of time.

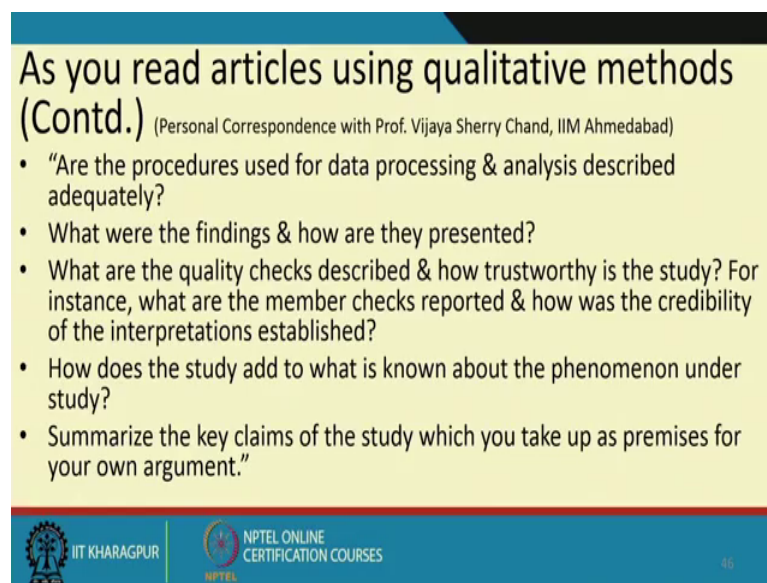
So, what are the guiding questions identify the gas followed in the study note that iterative processes of data collection or analysis are usually the norm. So, you go you collect the data come back try to understand it you realize you need more data you go back you come back and then you understand it then you look at it evaluate it and then you go back.

So, this dance continues and you collect the data you analyse it you go back collect data you analyse it and that in turn excuse me forms the bulk of your study. So, you need to identify the gaps followed in the study how has one gap identification of one gas sorry one gap lead to the collection of the data and analysis of data and how is that analysis lead to an in the identification of another gap that could be related to the first gap and so on are the data collection procedures including recording or note taking described well in qualitative research extensive notes to be taken extensive recording needs to be done.

So, has that been described well or not are ethical requirements related to enlisting people and data collection described were any guidelines followed then in a study involving other participants what was the role of the author in collecting data. So, that is again what did the author do what was the goal of the author in collecting data how did the author go and collect the data if there were other participants who were also you know involved in data collection and analysis.

So, what was what was the roll how did the author interact with those participants or distance himself or herself from those participants, because the qualitative research again the author himself or herself becomes the tool of data collection and could be interacting with different stages of the process and influencing it in the process are the procedures used for data processing and analysis described adequately.

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**As you read articles using qualitative methods (Contd.)** (Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- "Are the procedures used for data processing & analysis described adequately?"
- What were the findings & how are they presented?
- What are the quality checks described & how trustworthy is the study? For instance, what are the member checks reported & how was the credibility of the interpretations established?
- How does the study add to what is known about the phenomenon under study?
- Summarize the key claims of the study which you take up as premises for your own argument."

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So, how you process the data how have you analyse the data what were the findings and how are they presented what they discover how were these findings presented how are they shared with the reader and how are they described; how are they justified what are the quality checks described and how trustworthy is the study.

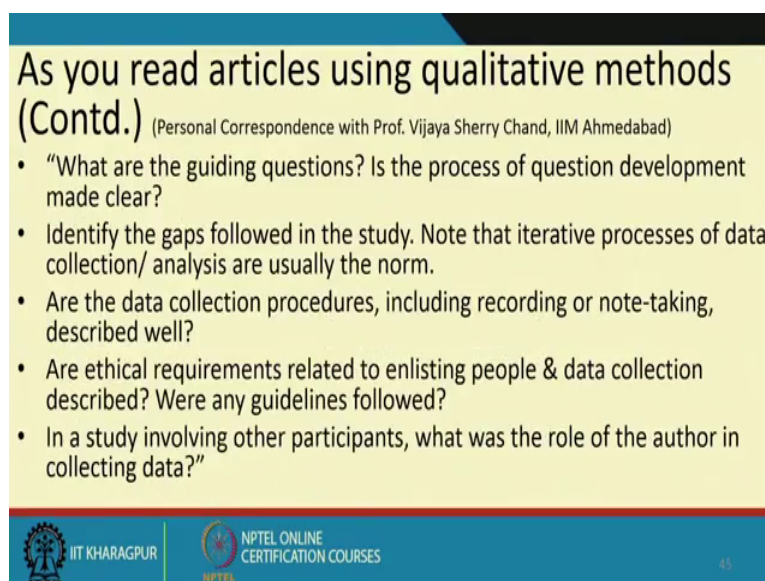
So, again in qualitative research there are a number of checks that are described there are number of checks that your study goes through. So, you need to justify use of those checks and then again when you are reading qualitative papers you need to find out how trustworthy the study is based on the quality check that have been placed there for

instance what are the member checks reported and how was the credibility of the interpretations established many kinds qualitative research what we do is we collect the data and number of people interpret it and then these interpretations are taken together and brought together and then understood together from different perspectives. So, these this is called a member chain. That means, people who participated in the data collection again become also become tools of collecting the same kind of data and then the data is taken from various sources and it is triangulated as we say.

So, different sources of data bring the data together and it is looked at from various angles now what is the check in balance to ensure that the data is interpreted in the in a similar manner know what is the briefing to the members who are interpreting data what how are they briefed what are they told. So, all that has to be and all that is explained in good papers on that have used qualitative research.



So, that is again going to be very very essential to see how does the study add to what is known about the phenomenon under study again what is the significance why should why has author spend some time studying the phenomenon that was studied. So, that is again very essential summarize the key claims of the study which you take up as premises of your own arguments. So, while you are reading it again what you do you go back and you put everything in here and that is really the last part when you read something you must read it thoroughly you must understand it as thoroughly as possible.

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**As you read articles using qualitative methods (Contd.)** (Personal Correspondence with Prof. Vijaya Sherry Chand, IIM Ahmedabad)

- "What are the guiding questions? Is the process of question development made clear?"
- Identify the gaps followed in the study. Note that iterative processes of data collection/ analysis are usually the norm.
- Are the data collection procedures, including recording or note-taking, described well?
- Are ethical requirements related to enlisting people & data collection described? Were any guidelines followed?
- In a study involving other participants, what was the role of the author in collecting data?"

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So, you know this is very very essential because once you it takes initially it takes about you know it could take you about may be 2 to 3 days to understand one paper, but the advice that I give to my students is that you must commit to writing hundred to 2 hundred words about whatever you knew things or whichever whatever about the new things that you have learned during that day about you own area of research.

So, you read a paper you read a part of the paper and record what you have written in terms of what you read and how it educates you about your own area of study and you keep building a diary it could be online is better because you just keep adding to it. So, you keep adding to it and you try understand every paper thoroughly because all of these forms the basis for whatever knowledge you are going to build later and the expression of that knowledge you may be creating knowledge, but all that knowledge is of no use if you do not express it if you do not share it with the right people with the people who can use it. So, that is why research writing is important.

So, you add to the knowledge base and then in order to do that you have to first understand how the knowledge base has been created you need to read both quantitative and qualitative papers you need to understand what are the definite outcomes and what are the outcomes in the grey areas qualitative research with grey areas. So, it is very essential that before you embark on any study you need to conduct a review of the literature and you need to get the information from various sources.

Whatever we have discussed in this class informs you about how to tap into those sources and how to get the maximum out of them. So, again this check list may seem taunting; however, it is not it is you know once you get the hang of it once you get use to looking for these things, it becomes the process gets to be you know it gets faster, but in the very beginning you could take may be again 2 to 3 may be even 5 days to read one paper.

So, that is where we will end this lecture now and we will continue with some more understanding on how to write or how to read up and how to start writing a literature reviews.

Thank you very much for listening.