

Development Research Methods
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Lecture - 13
Conducting case studies and maintaining field diaries.

Hello and welcome to the NPTEL MOOC's course on development research methods. In today's lesson, we will study about case studies and field diaries. Let me begin by saying that for the sake of brevity, for this course although I have put case diaries and case studies and field diaries as a part of module 2 which is qualitative research methods, case studies and field diaries can largely be seen as research strategies that are used both in the case of qualitative and quantitative research. Therefore, it is probably not entirely correct to identify case studies as qualitative research methods, because increasingly given the complexity of the development questions and issues that researchers are investigating, case studies are also used to gather large amounts of quantitative information through single case studies or multiple case studies, which may not necessarily be subjected to statistical tests. Nonetheless, they are quantitative in nature.

Therefore, we cannot strictly distinguish case studies as a research strategy which is applied only by qualitative researchers. Mixed methods researchers and quantitative researchers are also making overwhelming use of case studies as a method. Now with this short introduction, let us see what we will cover in today's lesson. They are as follows.

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What we will cover in today's lecture

1. What is case study method and when to use it?
2. Different types of case study research designs.
3. Stages of doing case study research.
4. What are field diaries? How to maintain field diaries?
5. Diaries as a research method.

We will begin with what is case study method and when to use it. What are the different types of case study research designs, stages of doing case study research, what are field diaries, how to maintain field diaries and also diaries as a research method.

Many researchers would have you believe that research diaries or diary methods of enquiry are a specific research method, which is used as a strategy of following up case studies as well. Therefore, there are various perspectives on what are the categorization to follow with regard to case studies and diary research methods. Nonetheless, for our course on development research methods where the focus is primarily on development studies and issues of development, we can look at them as a research strategy, where different methods of data collection can be applied, given the context and it may be the historical context, it may be a project context or it may be a certain institutional context that we are applying to our research studies.

So, before entering into what is a case study and when to use it, let us begin with a few examples of case studies

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Let us look at some examples of case studies based on events, situations, programmes and activities...

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Example of Case study: Events

• Asmussen, K. J., & Creswell, J. W. (1995). Campus response to a student gunman. *Journal of Higher Education*, 66(5), 575–591

A detailed description of the gunman incident; a chronology of the first 2 weeks of events following the incident; and details about the city, the campus, and the building in which the incident occurred. Findings resulting from data collection through multiple sources of information, such as interviews, observations, documents, and audiovisual materials, are presented. From the data analysis, denial, fear, safety, retriggering, and campus planning emerge as prominent concerns. These themes are combined into two overarching perspectives, an organizational and a psychological or social-psychological response, providing "layers" of analysis in the study and broader interpretations of the meaning of the case.

And this is an example of case study of events. This research paper focused on campus response to a student gunmen and this appeared in the *Journal of Higher Education*. And the description of the case followed this plan, where a detailed description of the gunman incident was given, a chronology of the first 2 weeks of events following the incidents and details about the city, the campus and the building in which the incident occurred. Findings resulting from data collection

through multiple sources of information, such as interviews, observations, documents and audiovisual materials were presented. And from the data analysis, denial, fear safety, retriggering and campus planning emerged as prominent concerns. And these themes were combined into two overarching perspectives, an organizational and a psychological or social psychological response, providing layers of analysis in the study and broader interpretations of the meaning in this case.

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Example of Case study: Situations

- Hughes, M. (1998). Turning points in the lives of young inner-city men forgoing destructive criminal behaviors: A qualitative study. *Social Work Research*, 22(3), 143–151.

In-depth interviews with the men were used to examine their life courses from the time of their earliest memories. Personal and environmental transitions that contributed to their decisions to change were uncovered. Factors affecting their transition experiences included maturation, respect and concern for children, fear of physical harm or incarceration, contemplation time, and support and modeling by others. Implications for social service providers, policymakers, and youth program staff are discussed.

A second example of case study could be in the form of situations. The title of this case study was given as ‘Turning points in the lives of young inner-city men forgoing destructive criminal behaviors: A qualitative study’ which appeared in *Social Work Research* journal. In here in depth interviews with the men were used to examine their life courses from the time of their earliest memories. Personal and environmental transitions that contributed to their decisions to change your uncovered. Factors affecting their transition experiences including maturation, respect and concern for children, fear of physical harm or incarceration, contemplation time and support and modeling by others were introduced. Implications for social service providers, policymakers and youth program staff, were discussed in detail in this case study.

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Example of Case study: Programs

- D'Emidio-Caston, M., & Brown, J. H. (1998). The other side of the story: Student narratives on the California Drug, Alcohol, and Tobacco Education programs. *Evaluation Review*, 22(1), 95–117.

The constant comparative method was used to analyze 40 focus group interviews of at-risk and thriving groups conducted in 11 high, middle, and elementary school districts. Results suggest that students use "story" to make sense of prevention education and distinguish use from abuse. High school students believe that hearing only one side of the substance use/abuse story and strict expulsion policies alienate students most in need of help. Implications for the use of story as an assessment tool are discussed, as are implications for substance use prevention policy.

Another example is that of a case study with respect to programs. Here, the focus was on student narratives on California drug, alcohol and tobacco education programs, which appeared in *Evaluation Review*. Now the constant comparative method was used to analyze 40 focus group interviews of at risk and thriving groups conducted in 11 high, middle and elementary school districts. Remember that in the last class we went into the details of focus group discussions, where focus groups and the information that is emanating from the cases followed with the help of focus group discussions or another can also be categorized as a different form of a case study. So in here 40 focus group interviews were undertaken, and the results suggested that students use story to make sense of prevention, education and distinguish us from abuse. High school students believe that hearing only one side of the substance use or abuse story and strict expulsion policies alienated students most in need of help. And implications for the use of story as an assessment tool are discussed, as are implications for substance use prevention policy.

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Example of Case study: Activities

- Horn, E., Lieber, J., Li, S., Sandall, S., & Schwartz, I. (2000). Supporting young children's IEP goals in inclusive settings through embedded learning opportunities. *Topics in Early Childhood Education*, 20(4), 208–224.

The studies were conducted in three separate inclusive early childhood education programs located in three different states on four children with disabilities and their classroom teachers. The examination of the ELO procedure included assessment of teachers' planning and implementation, the impact on child performance of specific learning objectives, and the teachers' perceptions of the ELO strategy. Data collection was done through a variety of collection techniques, including direct observation using strict protocols and interviews of teachers. The results revealed that all teachers demonstrated increases in use of instructional behaviors toward targeted objectives, and the children showed concomitant increases in performance of targeted objectives.

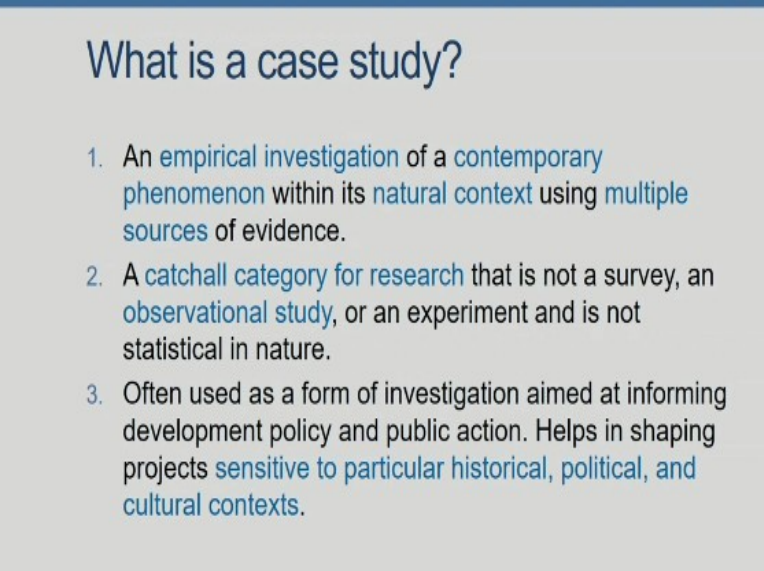
This is an example of case study based on activities where 'supporting young childrens' IEP goals in inclusive settings through embedded learning opportunities'. The studies were conducted in 3 separate inclusive early childhood education programs located in 3 different states on 4 children with disabilities and their classroom teachers. So these are case specific studies where cases studies have been carried out only on 4 children.

The examination of a certain procedure included assessment of teachers planning and implementation, impact on child performance of specific learning objectives and the teachers perceptions of the preferred strategy undertaken. Data collection was done through a variety of collection techniques, including direct observation using strict protocols and interviews of teachers. And the results revealed that all teachers demonstrated increases in use of instructional behaviors towards targeted objectives and the children showed concomitant increases in performance of targeted objectives.

So, what do all these examples say? These examples say that case studies as a method are used for various purposes depending upon the context that we are tudying. And therefore, there are various methods of data collection that can be utilized for conducting a case study and therefore, it is best to look at case study as a researcher strategy which uses different methods of enquiry.

So, in this lesson we will first look at some of the major features and situations in which case studies are used and in the second part of this lesson we will focus on diaries or field diaries and diary method as a research method of enquiry followed in development research.

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What is a case study?

1. An empirical investigation of a contemporary phenomenon within its natural context using multiple sources of evidence.
2. A catchall category for research that is not a survey, an observational study, or an experiment and is not statistical in nature.
3. Often used as a form of investigation aimed at informing development policy and public action. Helps in shaping projects sensitive to particular historical, political, and cultural contexts.

So, let us look at what is a case study after having been introduced to some examples of how case studies are followed. So, what is a case study? Many people actually think of case studies as clinical descriptions of people with unique characteristics or symptoms and treatments used to help them. And a case study research represents a much broader view. It actually means conducting an empirical investigation of a contemporary phenomenon within its natural context using multiple sources of evidence.

Some people also use the term case study is a catch-all category for research that is not a survey an observational study or an experiment and is not statistical in nature. But it is crucial that projects are shaped so as to be sensitive to particular historical, political and cultural contexts. An in-depth research taking the form of a case study can play an important role in planning and carrying out a development project, particularly in designing interventions that are tailored to suit local contexts. So, these are certain explanations as to what is a case study.

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Philosophical underpinnings

- Case study research is effective when it is rooted in theory- that is, an idea about why things happen as they do.
- Approach to case study is based on a **constructivist paradigm**.
- Constructivist paradigm **recognizes the importance of the subjective human creation of meaning**, but doesn't reject some notion of objectivity.
- Constructivism allows close collaboration between the researcher and the participant, while enabling participants to tell their stories.

Now, what are the philosophical underpinnings of case study? Now, largely the literature on case studies that you see available in through journals or through textbooks, you would see that the focus is, the philosophical underpinning is, largely on interpreted a positivist approaches or the qualitative approaches. However, as I have made it clear in the beginning of this lesson that quantitative researchers and mixed methods researchers are also increasingly making use of case studies as an important tool of being able to gather specific quantitative information on certain cases that have very big relevance to the studies that are being undertaken.

Nevertheless, scholars have pointed out that the case study research is effective and it is rooted in theory that is an idea about why things happen as they do. And therefore, the approach to case study is based on a constructivist paradigm. And this paradigm recognizes the importance of the subjective human creation of meaning, but does not reject outrightly some notions of objectivity. And in here, pluralism and not relativism is stressed with focus on the dynamic tension of subject and object. Constructivism allows close collaboration between the researcher and the participant while enabling the participants to tell their stories. And through these stories, the participants are able to describe their views of reality and this enables the researcher to better understand the participants action. So, this is where the roots of case studies are coming from.

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Some characteristics of Case Studies

1. Case studies ask the questions 'How?' and 'Why?' about a contemporary set of events over which the investigator has little or no control.
2. Case studies try to cover contextual conditions because they are relevant to the phenomenon under study.
3. The phenomenon being researched is studied in its natural context, bounded by space and time.
4. Case studies are richly descriptive, because it is grounded in deep and varied sources of information.
5. Creates opportunities for the researcher to explore additional questions by the act of investigating a topic in detail.

Now, based upon the theoretical underpinnings of case studies and the increasing use of case studies in different contexts, we can also share some of the important characteristics of case studies. So, what do case studies really do? Case studies ask the questions of how and why about a contemporary set of events over which the investigator has little or no control.

For example, if I have to take an example, I will go back to the example of complimentary feeding practices. Let us say that in a certain locality or a region in a country, there are reported deaths of children because of they suffering from a certain disease. Let us say, children dying of Japanese encephalitis or children dying of malnourishment. And these are certain events that are beyond the control of the researcher and the participant, and therefore, then the question that needs to be asked is how and why such a phenomenon has occurred in the first place and these are cases that can be followed up appropriately through case study approach.

Case Studies also try to cover the contextual conditions because they are relevant to the phenomenon under study. Now to the last example, to this example of children dying of a certain disease, where is it the children are dying, how is it that children are dying, and what is the community in which children are dying, what is the region in which children are dying and are there specific social, economic, medical and environmental factors that have contributed to the death of children and this is the contextual conditions that can be taken up for case studies.

The phenomenon being researched is studied in its natural context bounded by space and time. And this is something which is of large importance as far as case studies are concerned. They are richly descriptive because it is grounded in deep and varied sources of information, and it create opportunities for the researcher to explore additional questions by the act of investigating a topic in detail.

So, if we are taking up a case of malnourishment of children in a certain locality, and we see that, suppose the investigator observes that the situation of malnourishment or the event of a child being malnourished has arisen primarily not because of medical conditions, but because of certain social practices and feeding practices that are followed by the primary care givers of these children in the certain region, then that becomes an important factor in explaining the deaths related to malnourishment in that locality.

So, therefore, the case study approach creates opportunities for the researcher to explore additional questions by the act of investigating a topic in detail as in the case of malnourishment related deaths among children.

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When to use a case study approach? An instance

- A study is conducted of the decision making of nursing students that will determine the types of decisions made by nursing students and the factors that influenced the decision making. The case would be the decision making of nursing students, and since the case cannot be considered without the context, which would be The school of Nursing, and more specifically the clinical and classroom settings.

Now, the question is when to use a case study approach. Now, many scholars are of the view that a case study design should be considered when the focus of the study is to answer how and why

questions as I have just mentioned. Also, when we cannot manipulate the behavior of those involved in the research process, also when we want to cover contextual conditions, because we believe they are relevant to the phenomenon under study. And also when the boundaries are not very clear between the phenomenon and the context that we are studying. As I said, the phenomenon in this case is that of malnourishment related deaths and the context could be that are feeding practices carried out by primary caregivers in this example and the phenomenon and the context- the boundaries are not very clear and therefore, it requires in depth investigation of the case studies whether through singular case studies or multiple case studies, followed by the investigator or the researcher in question here.

One of the instances of when to use a case study approach is showing on your slide here. This is a study conducted on the decision making of nursing students that determines the types of decisions made by nursing students and the factors that influence the decision making. The case would be the decision making of nursing students and since the case cannot be considered without the context, which would be the school of nursing and more specifically the clinical and classroom settings. This is just an example of when to use a case study approach.

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The slide is titled "Different kinds and strategies of case study". It lists six types of case studies, each with a red checkmark to its right. To the right of the list, there are two categories of strategies, each with a red checkmark: "❖ Single case strategies" and "❖ Multiple case strategies".

Kind of Case Study	Strategy
1. Individual case study	Single case strategies
2. Set of individual case studies	Multiple case strategies
3. Community studies	Single case strategies
4. Social group studies	Multiple case strategies
5. Studies of organizations and institutions	Multiple case strategies
6. Studies of processes, events, roles and relationships	Multiple case strategies

So, having discussed about these let us, look at what are the different kinds and strategies of case study. Now, all of these different kinds and strategies of case studies can be categorized under

two broad themes, singular case studies or single case strategies and multiple case strategies. We can follow individual case studies, we can have a set of individual case studies, community studies, social group studies, studies of organizations and institutions, studies of processes, events, roles and relationships. And depending upon what is the kind of study that we are trying to investigate or employ our research tools and techniques for, the research questions will also keep on changing.

And in the case of individual case study, one of the examples that we can take of is, let us say we are following a certain child who has been identified as being malnourished in a certain region and there has been certain medical interventions or therapeutical interventions carried on due to the ill health of the child. And following the interventions, the child has been able to overcome some of the nutritional deficiencies and is being able to lead a good life. So, in this case, we might want to follow a single case study of this child say X and give an interpretation of how and what are the different kinds of interventions that were carried out that could help the child overcome the nutritional deficiencies.

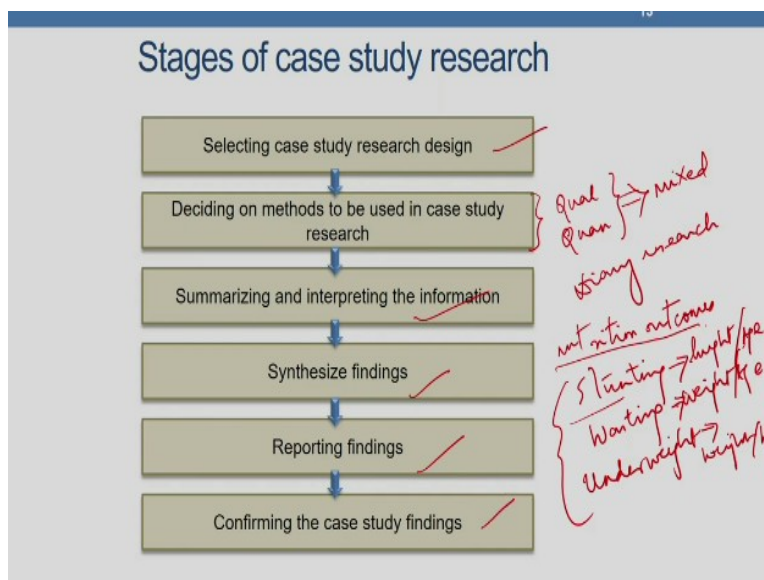
We can also follow a set of individual case studies like in the case of example of malnourishment death that we can follow a number of case studies, let us have 4 or 5 case studies and then come up with a particular conclusion regarding what are the kinds of interventions that need to be carried out. These kinds of case studies, set of individual case studies, are also followed in the case of disability related case studies or children suffering from learning disabilities and where particular cases are followed to understand what are the different kinds of interventions that need to be carried out for reversing the learning disabilities that have occurred in the first place. So, individual case study and set of individual case studies.

Community studies in the past few classes, I have taken examples of tea garden communities and specific social practices and socio-economic conditions that are very typical of tea garden communities in the state of Assam let us say for example. So therefore, community studies where we are considering the context of a certain community for being able to investigate a research question can form a community level case study. Social group studies; similarly, can take the form of different kinds of social groupings that are carried out by social science researchers, let us say dalit studies or feminist studies with focus on equality or gender

relationships. Womens studies with focus on a certain social group of bringing together women. Looking up various other marginalized groups studies let us say tribal case studies and so on can also form a part of social group studies.

Studies of organizations and institutions; to make this example more relatable to the audience that is taking this course in the specific example of malnourishment related deaths, if we are trying to look at the entire gamut of health institutions that are catering to issues of malnourishment and we take up the case of first level of health institutions that are catering immediately to the health of the children in a certain location or region could form part of studies of organizations and institutions. Similarly, we can study processes, events, roles and relationships of which we have taken examples in the beginning of this class.

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So, what are the stages of case study research? Like in the case of various other research designs, which we have covered in one of the earlier classes, we begin with selecting a case study research design and then we decide on the methods to be used in case study research. Now, this deciding on the methods of case study research is something which is very important because as I pointed out, the methods could be of qualitative nature, it could be of a quantitative nature, and it could be something in the middle, we could take records to both qualitative and quantitative

methods of enquiry. Often diary research methods are also forwarded as a certain tool or a method of research enquiry as part of case studies.

And what will be the method that should be used for the case study depends upon the research question that we are investigating. Let us say in this example of malnourishment death, we know that some of the nutrition outcomes that are generally used in the case of looking at nutritional deficiencies among children are that of stunting, wasting and underweight. So, in the case of stunting we are basically looking at the height of children for age. In the case of wasting we are looking at weight of children by age. And in the case of underweight, weight by height. And there are certain WHO standards- World Health Organization standards- for how do we identify if a certain group of children are found to have been stunted as in they have not reached the desired height as they should have and similarly, in the case of wasting and underweight whether desired standards are that we are calculating Z scores and determining if they are below - 2 standard deviation or - 3 standard deviation from the mean height in the reference group.

So, in this case, we will actually be collecting quantitative information. In the case of nutrition outcomes or malnourishment related deaths that we are talking about, we might want to follow case studies of certain children in the age group of 6 months to 2 years by focusing on what are the nutrition outcomes. So, in this case is nutrition outcomes specifically take values that are quantitative in nature. They might not necessarily be subjected to rigorous statistical tests. Nonetheless we are collecting quantitative information here. Similarly, if we are looking mostly at the feeding practices and the social behavior and the social context in which these children are born, let us say we are looking at the age of the mother whether there has been under age marriage as far as the mother is concerned, what was the age at marriage, what was the age at birth. And if we are looking at certain social contexts in which the very young mothers are being subjected to then probably we will be looking up more into qualitative data gathering processes.

Now, after deciding on the methods to be used in case study research, we summarize and interpret the information that we have collected from the cases, we synthesize the findings and then report findings confirming the case study findings.

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Error correction of slide 13

Stunting: Height for age (Moderate and severe - below minus two standard deviations from median height for age of reference population.)

Wasting: Weight for height (Moderate and severe - below minus two standard deviations from median weight for height of reference population.)

Underweight: Weight for age (Moderate and severe - below minus two standard deviations from median weight for age of reference population; severe - below minus three standard deviations from median weight for age of reference population.)

These are the stages that are used for case study research.

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Procedure	
Intent, appropriate design, and how intent relates to research problem are defined.	The problem focuses on developing an in depth understanding of a "case" or bounded system.
The plan to receive approval and gain access to study sites and participants is defined.	Approval from institutional review board is obtained. A research site is located using purposeful sampling procedures.
Data are collected emphasizing time in the field, multiple sources of information, and collaboration.	Extensive information is gathered using multiple forms of data collection (observations, interviews, documents), including audiovisual materials and other relevant sources.
Data are analyzed and interpreted relative to the design.	Data are reviewed to develop an overall understanding.
Research report suitable for dissemination is prepared.	Reporting focuses on describing the case with description, analysis, and interpretation addressed differently or equally.

Now, what are the procedures that are commonly used in case studies? Let us begin with intent, appropriate design and how intent relates to research problems are defined. This largely falls under the domain of research design. Now, in this case, the problem focuses on developing an in-depth understanding of a case or a bounded system. If the procedure is to receive approval and gain access to study sites and participants and defining of the participants, then we need approval

from institutional review board. And the research site is located using purposeful sampling procedures. For procedure related to data collected, emphasizing time in the field, multiple sources of information and collaboration, extensive information is gathered using multiple forms of data collection- observations, interviews, documents, including audiovisual materials and other relevant sources. For procedures related to data analysis and interpreting, related to the design- the data reviewed to develop an overall understanding. And if the procedure is to prepare a research report which is suitable for dissemination and the reporting focuses on describing the case with description, analysis and interpretation addressing differently or equally. So, these are certain common procedures that need to be kept in mind, when we are moving towards a case study approach of doing research.

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Characteristic	Data collection questions
A bound "case," such as a process, activity, event, program, or multiple individuals, is investigated.	What is studied? (Define the case.)
A gatekeeper provides access to information and assistance in gaining confidence of participants.	What are any concerns related to access and rapport? (Establish access and rapport.)
A "case" or "cases," an "atypical" case, or a "maximum variation" or "extreme" case is defined.	What sites or individuals are going to be studied? (Sample with purpose.)
A collection of forms, such as documents and records, interviews, observations, or physical artifacts, is compiled.	What type (s) of information will be collected? (Delimit data.)
A variety of approaches (e.g., field notes, interviews, and observations) are used to gather data.	How is information compiled? (Record information.)
Concerns may emerge related to intensive data gathering.	Is data collection difficult? (Address field issues.)
A large amount of data (e.g., field notes, transcriptions, computer databases) is typically collected.	How is information stored? (Store data for analysis.)

Based upon the discussions that I have just had, we can tabulate the case study characteristics and data collection questions that should be kept in mind. In the case of a bounded case, such as a process, activity, event, program or multiple individuals, what is being studied is very important. We need to define the case. For example, are we taking up a case, which focuses on learning disabilities? Are we taking up a case which focuses on malnourishment? Are we taking up a case where we are trying to identify the aggro-ecological conditions for production or looking at the production systems of a certain community? So, what is the question that we are investigating will help us define the case properly.

A second characteristic is that of gatekeeper provides access to information and assistance in gaining confidence of participants. So, what are any concerns related to access and rapport, establish access and rapport? In the last few classes I have taken examples of taking permissions for reaching a certain site for conducting a case study or conducting a certain research and that is of extreme important. Whether we have established a certain rapport to be able to collect information safely and without any outside influence.

Case or cases or an atypical case or a maximum variation or extreme cases define. What sites or individuals are going to be studied. So, what is the sample with purpose? Similarly, a collection of forms such as documents and records, interviews, observations of physical artifacts is compiled. So, in here the question is what type of information will be collected, we are delimiting the data. So, when you are taking up case studies as a method of enquiry, let us say we are looking at documents and records, interviews, observations of physical artifacts, what we are effectively doing is to delimit the data that we are collecting and in other words, we are emphasizing on the scope of the amount of data that we will be collecting through the help of case study approach.

Now, a variety of approaches are used to gather data- example field notes, interviews and observations. So, the question is how is information compiled. And one of the methods of enquiry will be focusing in the second part of this lesson is on field notes or the diary methods of research enquiry.

To the question- is data collection difficult, we are addressing field issues. Now in here the characteristic is that concerns may emerge related to intensive data gathering. So, for example, when we are collecting in-depth information from the participants on the field, there may be concerns on the part of the participants with regard to what are we going to do with the information that is being collected from the field. And this falls in the domain of the difficulties of data collection and also instilling the faith in the minds of the participants regarding the security of the data that is being collected from them.

To the question regarding how is information stored, or how do we store data for analysis, a large amount of data example field notes, transcriptions, computer databases are typically

collected. So, these are some of the case study characteristics and data collection questions that need to be kept in mind.

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Types	Uses	Examples
Intrinsic case study	To know more about a particular individual, group, event, or organization.	Teacher exploring extracurricular activities of a poorly performing student.
Instrumental case study	Better understand a theoretical question or problem.	To know how college students acquire technology knowledge.
Collective case study	Address an issue in question while adding to the literature base that helps us better conceptualize a theory.	Studies designed to explore one of the seven intelligence forms contained in Gardner's theory of multiple intelligence.
Exploratory case study	seek to define research questions of a subsequent study	Exploratory study of a company's ethical climate to determine how business practices normally occur.
Explanatory case study	seek to establish cause-and-effect relationships.	Identify students' home environments that affect their classroom performance.
Descriptive case study	Attempt to present a complete description of a phenomenon within its context.	Gain a thorough description of hospital's emergency room procedures when admitting incoming patients.

With regard to the types of case study, research design, now, there are certain specific types of case study that are used in certain specific purposes. Let us look at some of them. So, one is intrinsic case study; here the use is to know more about a particular individual, group, event or organization. And one of the examples of looking at intrinsic a study is a teacher exploring extracurricular activities of a poorly performing student. This is referred to as an intrinsic case study. Psychologists make use of intrinsic case studies quite a lot when dealing with cases related to learning disabilities let us say for example.

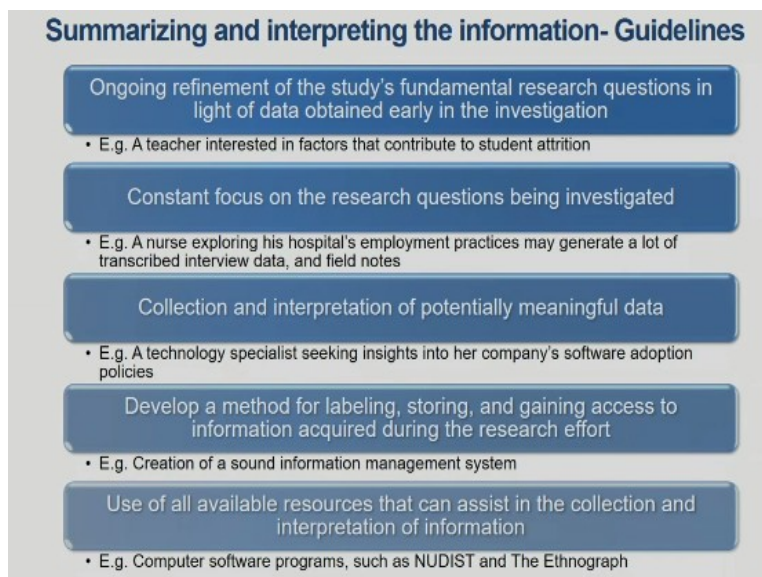
We can also have instrumental case studies where the use is to better understand a theoretical question or a problem. An example of this could be to know how college students acquire technology, knowledge. This is one of the examples of instrumental case study. The use of collective case study is when we are addressing an issue in question will add into the literature based that helps us better conceptualize a theory. One of the examples could be studies designed to explore one of the seven intelligence forms contained in Gardener's theory of multiple intelligence, where there is an established theory of multiple intelligence that is taken into

account and case studies can be designed to explore various other forms of intelligence that can go on to add on to the already existing theories.

An exploratory case study use is done when we seek to define research questions of a subsequent study. Here exploratory study of a companies ethical climate to determine how business practices normally occur. So, in that case we refer it to as an exploratory study. Explanatory case studies seek to establish cause and effect relationships. And this is where the data gathering process focuses more on quantitative information. So, as the cause and effect relationship can be established. An example of this could be when we are identifying students home environments that affect their classroom performance. Often in the case of socio-economic studies, where we focus on childrens dropout rates in in different regions or locations or different schools, categorized by private schools, government schools, aided schools and so on, we see that the home environment has a big role to play in the retaining of children in the schools. And this is where case studies can be taken up in a very big way to explain the cause and effect relationship.

We can also have descriptive case studies where the attempt is to present a complete description of a phenomenon within its context. An example of this could be gaining a thorough description of hospitals' emergency room procedures when admitting incoming patients.

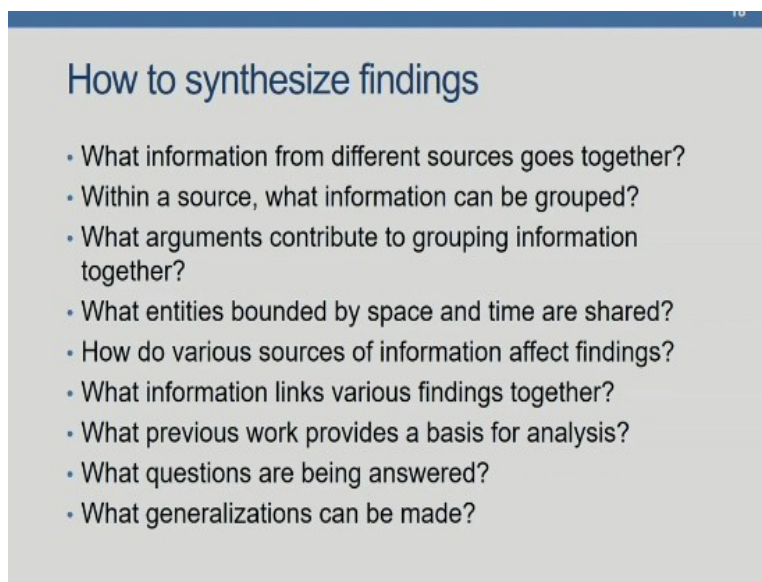
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So let us summarize and interpret the information in the form of guidelines with regard to how do we summarize the case studies. Now when we are looking at ongoing refinement of the study's fundamental research questions in light of data obtained early in the investigation, example a teacher interested in factors that contribute to student attrition. Similarly constant focus on the research questions being investigated- example a nurse exploring his hospitals' employment practices may generate a lot of transcribed interview data and Field Notes.

Collection and interpretation of potentially meaningful data- example a technology specialist seeking insights into her company's software adoption policies. Developing a method for labeling, storing and gaining access to information acquired during the research for example, create creation of a sound information management system and also using of all available resources that can assist in the collection and interpretation of information.

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How to synthesize findings

- What information from different sources goes together?
- Within a source, what information can be grouped?
- What arguments contribute to grouping information together?
- What entities bounded by space and time are shared?
- How do various sources of information affect findings?
- What information links various findings together?
- What previous work provides a basis for analysis?
- What questions are being answered?
- What generalizations can be made?

Now, how do we synthesize the research findings based upon the case study? We can present them in the form of research questions. These are certain question that needs to be kept in mind as pointers when we are synthesizing findings based upon case studies. And understand that because of the wide diversity and variety of case studies that are used, given the context and the question that we are investigating, it will not be proper to look at these questions as sacrosanct. as these questions can keep on developing as the research questions keep changing.

So some of the questions that need to be kept in mind are what information from different sources goes together. Within a source what information can be grouped. So for example, we are collecting information on malnourishment from the mothers who may be primary caregivers of the children. We may collect information on malnourishment from frontline health workers who are not the primary caregivers but who contain a large body of information regarding what works or what does not work in the specific case of malnourishment. We may also be gathering information from health professionals, let us say, not exactly doctors and nurses, but dieticians and food nutritionists who might be looking into this specific problem of malnutrition. And we may also collect clinical information, medical information from doctors who should be dealing with morbidity issues due to malnourishment.

Now the question to understand here is we are collecting information from different-different sources here. A- mothers who are primary caregivers, B- frontline workers who are directly dealing with the mothers and the children, C- health professionals but not doctors and D doctors and nurses who are professionals, health professionals trained professionally to deal with morbidity and mortality conditions. Now, the question is when we have information from these different sources, how do we put them together? That is a question that needs to be kept in mind with regard to synthesizing.

Now within a source what information can be grouped. So for example, in the case of respondent mothers, let us say regarding morbidity and mortality conditions emerging out of malnourishment, which are those information that can be grouped together. Can we enter into further groupings of information only when we are looking at primary caregivers? Can we look into further groupings only when we are looking at frontline health workers and so on.

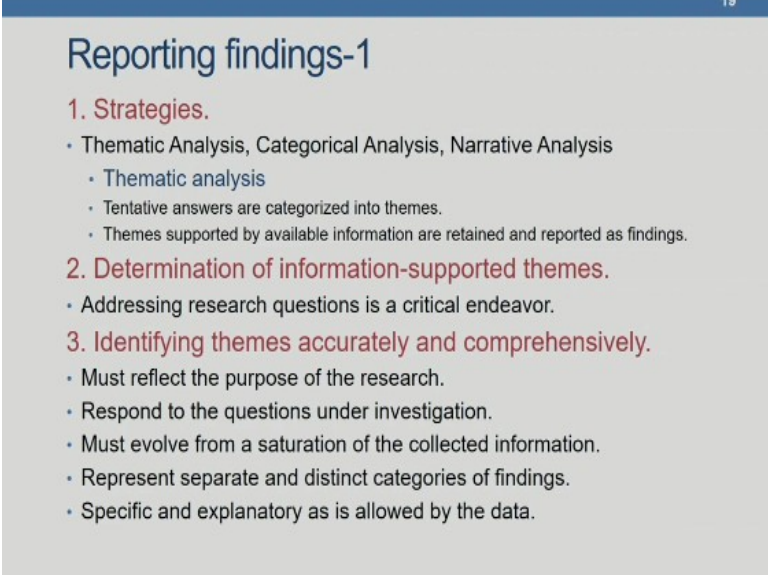
A third question to keep in mind when synthesizing findings is what arguments contribute to grouping information together. What entities bounded by space and time are shared. So let us say in the case of respondent, primary caregivers, mothers and frontline health workers, they may be sharing the same village space where the frontline workers are providing information to the primary caregivers and there is a constant collaboration between them in dealing with this particular situation of morbidity among children. Whereas professional health workers and

medical doctors might not be sharing the same space. Because the space and time of the first 2 are shared, so how are we grouping the findings emerging from these two entities together.

How do various sources of information affect findings? What information links various findings together? What previous work provides a basis for analysis? What questions are being answered and what generalizations can be made? These are a few questions that need to be kept in mind, when we are looking at synthesizing of findings. And of course, I have been taking the example of nutrition and malnourishment deaths and so on. But given the context changing and the research question changing, some of these questions of synthesizing findings may also change. And therefore, these questions can be looked up as pointers that can help you in designing your research questions if you are following a case study approach.

The final thing related to case studies is that of reporting the findings.

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Reporting findings-1

- 1. Strategies.**
 - Thematic Analysis, Categorical Analysis, Narrative Analysis
 - Thematic analysis
 - Tentative answers are categorized into themes.
 - Themes supported by available information are retained and reported as findings.
- 2. Determination of information-supported themes.**
 - Addressing research questions is a critical endeavor.
- 3. Identifying themes accurately and comprehensively.**
 - Must reflect the purpose of the research.
 - Respond to the questions under investigation.
 - Must evolve from a saturation of the collected information.
 - Represent separate and distinct categories of findings.
 - Specific and explanatory as is allowed by the data.

Let us read through some of the steps that need to be kept in mind or important characteristics that need to be kept in mind when we are reporting findings. The first thing is about strategies. Is there any thematic analysis, categorical analysis or narrative analysis that are coming up? And with regard to thematic analysis what are the tentative answers that can be categorized into themes and themes can be supported by available information that can be retained and reported

as findings. So, the first thing is about strategy- what is the strategy that we have employed for analysis of the information that is emerging from the case studies.

Second is that of determination of information supported themes. Here we are addressing research questions, which is a critical endeavor. Third is identifying themes accurately and comprehensively. It must reflect the purpose of the research. We must respond to the questions under investigation, we must evolve from a saturation of the collected information, it must represent separate and distinct categories of findings and specific and explanatory as is allowed by the data.

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The slide is titled "Reporting findings-2" in a blue font. Below the title, there is a section header "4. Components commonly found in most reports" in red. To the right of this header is a handwritten red bracket with Roman numerals I, II, III, and IV next to it. Below the header is a bulleted list of five items, each with a red checkmark to its right. The items are: "Should articulate the event, situation, program, or activity under investigation.", "Should reflect the literature related to the topic under investigation.", "Information related to data collection strategies should be included.", "Should be richly descriptive and include key participants' statements", and "Include strategies used to interpret, report, and confirm the case study's findings."

Reporting findings-2

4. Components commonly found in most reports

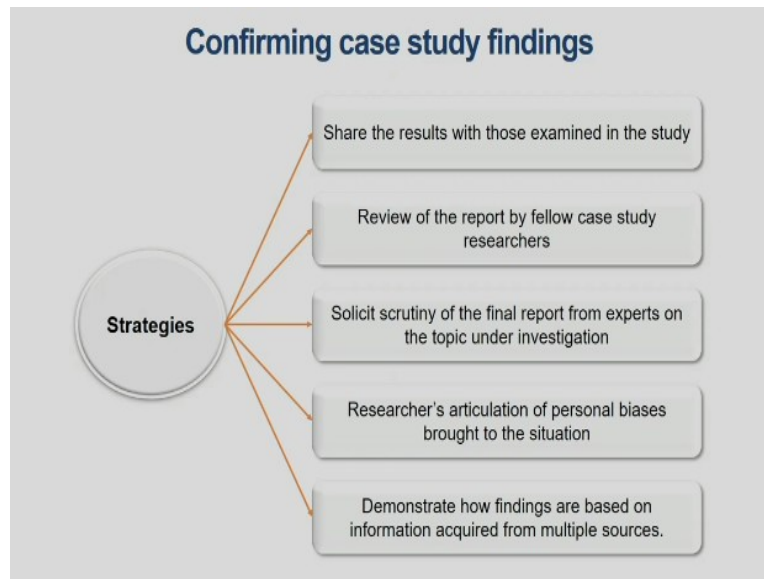
- Should articulate the event, situation, program, or activity under investigation.
- Should reflect the literature related to the topic under investigation.
- Information related to data collection strategies should be included.
- Should be richly descriptive and include key participants' statements
- Include strategies used to interpret, report, and confirm the case study's findings.

The fourth is the components commonly found in most reports. The report should articulate the event, situation, program, or activity under investigation, it should reflect the literature related to the topic under investigation, information related to data collection strategies should be included, should be ritually descriptive and include key participants' statements and include strategies used to interpret report and confirm the case study's findings.

In fact, this fourth feature of what are the components commonly found in most reports can also be looked at as different sections in the research and if you go through certain research the reports based upon case studies very carefully, you would see that these sections definitely

appear in the research report with focus on articulating the event or the case that we are studying, literature, data collection strategies, the key participants statements or tabulation of raw data that we have collected, and then of course, the interpretation of the data or what we referred to as results and discussions in most research papers.

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Confirming case study findings. So, these are certain strategies for confirming the case studies' findings. We can also say validating the case study findings. What do we have to do for that? We share the results with those examined in the study, we go back to the field, share our research findings with the case studies themselves, we review the report by fellow case study researchers, solicit scrutiny or final report from experts on the topic under investigation, researchers' articulation of personal biases can be brought to the situation, demonstrate how findings are based on information acquired from multiple sources.

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An example of a summary form

- Title of project
- Time period of research
- Date of ethics approval
- Identification of researchers
- Literature used to provide background and justification for research
- Description of research hypotheses
- Sample or population studied
- Explanation of all information collection procedures
- Findings
- Interpretation of findings
- Conclusions and recommendations based on findings

This is an example of a summary form of how a research project report based upon case study approach should look like- containing title of the project, time period of research, date of ethics approval, identification of researchers, literature used to provide background and justification for research, description of research hypothesis, sample of population studied, explanation of all information collection procedures, findings, interpretation of findings, conclusions and recommendations based on findings.

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Maintaining Field Diaries:
As **Field Notes** and as a **Research Method**

So, we come to the end of first part of this lesson, where we looked at case studies as a research strategy employing various methods of enquiry. We looked at certain examples of case studies. We also saw that different methods of enquiry can be taken up to come up with a very good case study and when should we use case studies? What are the different categories of case studies, how it should be used or what are the questions to keep in mind when we are following those case studies categories.

Now, let us come to the second part of this lesson where the focus is on maintaining field diaries as field notes and also as a research method. Now, the field notes or field diaries are variously called as diaries, log books, journals, field notes or lab books. And some version of this type of external memory has been used by researchers in many disciplines for recording their daily observations in the field.

Some of the most prominent diary methods that you may be aware of are in the cases of dietary intake recall, or food consumed recall that we employ in social science studies. Also in the case of time use survey or time use information, when we are studying gender differences with regard to occupational categories or when we are looking at time use of men and women children in different activities and so on. So, these are some of the important domains in which diary methods are largely used.

In this part of the lesson I will first make a distinction between field notes and then go on to diary method as a form of research enquiry that can also be a part of case study methods.

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What is a field diary?

- 'External memory': recording daily observations in the field.
- Include both 'data' and 'pieces of reflection, interpretation and analysis'.
- Diaries invite 'miscellaneous entries'.
- **As a researcher's diary (field notes):**
 - documents the development of perceptions and insights across various stages of the research.
 - enable ongoing analysis throughout data collection.
- **As a research method:**
 - one of a portfolio of methods in in-depth case study research.
 - used in ethnographic fieldwork, feminist research, sociologists of health and in AIDS research.

So, what is a field diary? It is an external memory, which is in the form of recording daily observations in the field. It can include both data and pieces of reflection, interpretation and analysis. And diaries invite miscellaneous entries. There can be various forms of entries, and this can be in the form of a researcher's diary, in the form of field notes or it can also be used as a method of enquiry- as a research method.

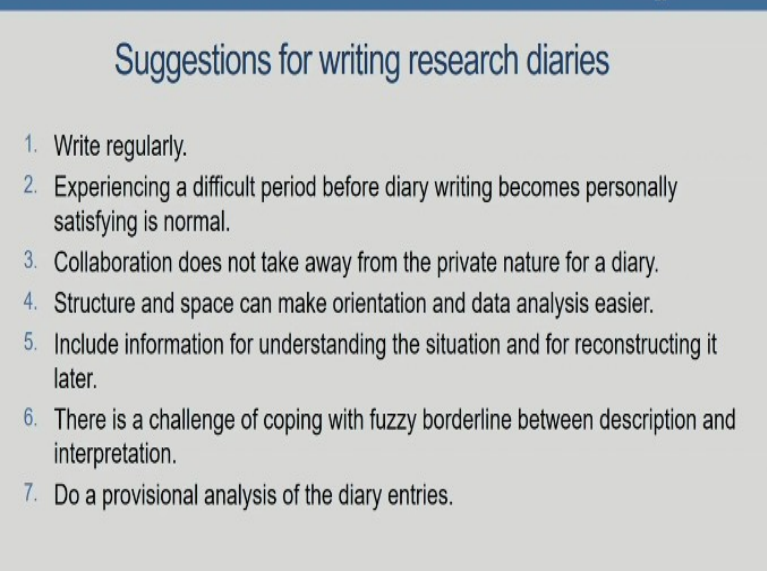
Often when we go to the field as a social science researcher, whether it is a researcher focusing on qualitative methods of enquiry or quantitative methods of enquiry, it is accompanied by field notes and these notes become an important tool of enquiry, important tool of analysis of the findings that is emerging from the study.

So, what happens in the case of researcher's diary? There are field notes maintained, it documents development of perceptions and insights across various stages of the research and it enables ongoing analysis throughout data collection. You begin with a research question, you jot down points in your field notes and when you go to the field, you jot down the first impressions that come to you from the field, while you are carrying out your method of enquiry with the help of instruments such as structured questionnaires or semi structured questionnaires and semi structured interviews scheduled whatever it is, the interview instruments or the survey instruments might not enable you to jot down the reflections that you have on your study area or the informants that you are studying. Whereas the field notes can take the place and you can jot

down your reflections on the study area, which can then enter into analysis when you are finally coming up with your report or your dissertation.

As a research method it is one of a portfolio of methods in in-depth case study research. Diary methods are also used in ethnographic fieldwork, feminist research, sociologies of health and in AIDS research and so on.

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The slide is titled "Suggestions for writing research diaries" in a blue font. Below the title is a list of seven numbered suggestions in a black font. The background of the slide is light gray with a blue header bar.

1. Write regularly.
2. Experiencing a difficult period before diary writing becomes personally satisfying is normal.
3. Collaboration does not take away from the private nature for a diary.
4. Structure and space can make orientation and data analysis easier.
5. Include information for understanding the situation and for reconstructing it later.
6. There is a challenge of coping with fuzzy borderline between description and interpretation.
7. Do a provisional analysis of the diary entries.

What are the suggestions for writing research diaries? There are certain suggestions for writing research diaries. One of the first is to write regularly. For example, entries might be written after each lesson in which a particular teachings strategy has been implemented, or after each meeting with a social group to be studied. But one has to write regularly. Suppose you are carrying out a survey for over a period of 1 month or 2 months, and you have interviewed 5 households in a certain day, you might want to enter certain notes regarding additional information that you might have observed as a part of the study during the day in your research diaries.

Second is people unaccustomed to diary writing often experience a difficult period before diary writing becomes personally satisfying. We find the diary writing easier if we collaborate it with a research partner with whom we could read and discuss extract. Often, as students when you go to the field for conducting research, you can fall back upon peers for discussing your research

findings that can help you further refine your ideas. You can fall back upon your supervisors for discussing the research findings which can help you further refine the research ideas.

Third is that collaboration does not take away from the private nature of a diary. The decision to make parts of it available to other people remains entirely with the author of the diary. So the privacy of the diary makes it easier to disregard considerations of styles and punctuation for example. Fourth is that structure and space can make orientation and data analysis easier. Paragraphs, headings, numbers, underlining, various fonts etc may be used to structure the text.

Fifth is that in the factual account, one can include information for understanding the situation and for reconstructing it later. Many scholars have pointed out that they can include observations, feelings, reactions, interpretations, reflections, ideas and explanation. Suppose you are in the field and you observe us certain event and there is an immediate reaction as a researcher to the event that you that is unfolding in front of you. And you can immediately record the reaction that you feel for a certain event in your field note or the diary, which can enter into an interpretation, which can help you in interpretation on the findings when you are in the final stages of your research process, whether it is a dissertation or a research project.

Sixth is one should include relevant items, because there is a challenge of coping with fuzzy borderline between description and interpretation. Because research diaries contain various kinds of records and this wide ranging approach corresponds to our everyday form of tackling problems and it also brings challenges. We can also do a provisional analysis of the diary entries.

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Points to include in field notes (researcher's diary)

- Data obtained by observation, interviews and informal conversations;
- Additional 'found items', such as photographs, letters and so on
- Contextual information about the ways these data were collected;
- Reflections on research methods;
- Ideas and plans for subsequent research steps.

What are the points to include in field notes or the researchers diary? These are some of the points one is data, data obtained by observation, interviews and informal conversations. We can also include additional found items such as photographs, letters and so on. Contextual information about the ways these data were collected, reflections on research methods and ideas and plans for subsequent research method, including both data and pieces of reflection, interpretation and analysis can also be done in the case of researchers' diary.

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Some components of Field Notes

Memos

- Produced when trying to recall experiences over specific periods of time (E.g. During a classroom lesson, a court session, etc.).
- Written primarily to describe and document events after they have taken place.
- Descriptive sequences and interpretative sequences.

Theoretical notes

- Put forward explanations relevant to the research question being investigated.
- Useful for making connections between various accounts and other bits of information.

Methodological notes

- Contain the researcher's observations and reflections on research strategy, methods and activities.
- Help to develop the quality of the research project.

These are some of the components of field notes- memos, theoretical notes and methodological notes. Memos are produced when trying to recall experiences over specific periods of time, example during a classroom lesson or court session etc. It is written primarily to describe and document events after they have taken place in the form of memos or descriptive sequences and interpretative sequences. Theoretical notes are put forward as explanations relevant to research questions being investigated, useful for making connections between various accounts and other bits of information. Methodological notes contain the researchers' observations and reflections on research strategy, methods and activities and it helps to develop the quality of the research project.

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Now, this is diaries as a research method. Those are the things to keep in mind when we are looking at diary as field notes of the researcher and now diaries as a research method.

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Diary as a research method

1. Holds importance alongside a range of other research methods, particularly as part of in-depth case studies.
2. Means of accessing information which can not be accessed through conventional methods.
3. Used as one of a portfolio of methods in the context of in-depth case study research.
4. A useful means of deepening cultural insight into the places of study.
5. Sometimes the diaries are open and unstructured, sometimes they are characterized by tightly defined activities.
6. Usually combined with preliminary interviews or focus groups to introduce the idea of the diary.

It holds importance alongside a range of other research methods particularly as part of in-depth case studies. So, as I have been pointing out, case studies can be looked at as a research strategy, where we use diary method as a research method following the strategy of case studies. It is a means of accessing information which cannot be accessed through conventional methods. And it can be used as one of a portfolio of methods in the context of in-depth case study research. It is a useful means of deepening cultural insight into places of study. Sometimes diaries are open and unstructured, sometimes they are characterized by tightly defined activities and they are usually combined with preliminary interviews of the focus groups to introduce the idea of the diary.

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Implications for research design

- Research diaries are useful where a person or a group is trying to make sense of experience.
- Diaries are subjected to procedures of qualitative analysis as part of a comprehensive process of data analysis.
- Diaries can be particularly useful for making detours.
- In quantitative research, diaries may be employed as log books.
- Helps the researcher not only to document the action, but to capture interpretations at points along the way.

The diary method or maintaining the diary method or introducing the diary method can also have implications for research design. Some of the implications are as follows; research designs are useful where a person or a group is trying to make sense of an experience. Diaries are subjected to procedures of qualitative analysis as part of a comprehensive process of data analysis. Often we can mention in our research methodology section of the project or the thesis that we are undertaking that a diary method of analysis was used for understanding certain research questions or themes of research questions. Diaries can be particularly useful for making detours. In quantitative research diaries may be employed as log books and it helps the researcher not only to document action but also to capture interpretations at points along the way.

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Advantages and drawbacks of research diaries	
Advantages	Disadvantages
1. An interactive method. The diary-keeper has time to reflect on what she/he wishes to record.	1. Time-consuming and laborious.
2. Empowering or therapeutic for the writers.	2. Undermines the potential for a 'representative' sample of diary-keepers.
3. Build relationships of trust between researcher and researched.	3. The diary-keeper may deploy considerable self-censorship.
4. Provide the researcher with a record of daily activity and reflection.	4. May not keep a regular or daily record.
5. Can enhance the researcher's depth of cultural, political and social understanding.	5. The contents of solicited diaries can be subjective and idiosyncratic.

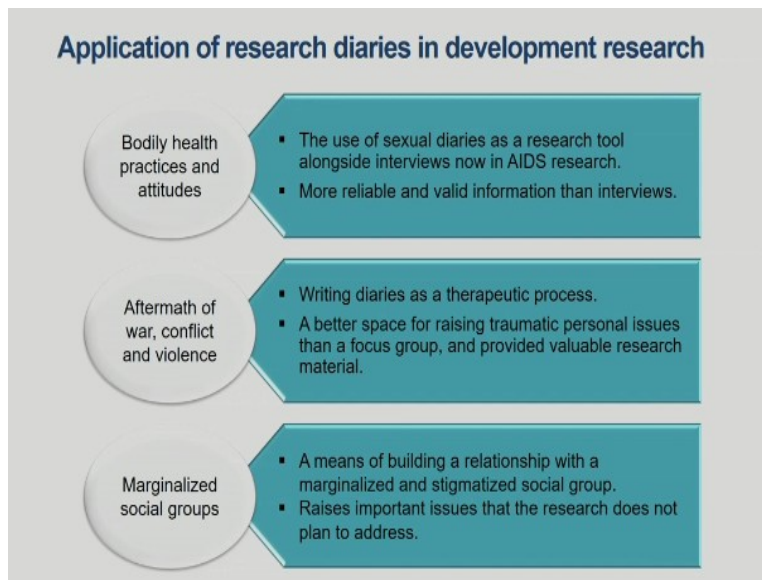
These are certain advantages and drawbacks of research diaries. Advantages; it is an interactive method, the diary keeper has time to reflect on what she or he wishes to record. However, the disadvantage is that it is time consuming and laborious and it takes a lot of training and discipline on the part of the researcher to be able to maintain a diary. Often many serious minded researchers begin with an intent of maintaining a diary but because of the exhaustion or the fatigue that they face in the field, they discontinue writing their diaries and there is a gap that cannot be filled when we come to the research findings interpretation stage. Therefore, it takes lot patience to be able to be consistent with the method of diary maintaining.

The second advantage is that it is empowering or therapeutic for the writers. Because when in the case of dissertations research or thesis research where researchers are spending very long duration of time on the field, and it becomes a very lonely process of conducting research, maintaining a diary can be very empowering and therapeutic as well. The disadvantage is it undermines the potential for a representative sample of diary keepers.

Third advantage is- it builds relationship of trust between researcher and researched. However, the disadvantage is the diary keeper may deploy considerable self censorship. Fourth advantage is it provides the researcher with a record of daily activity and reflection. And the disadvantage is as I have pointed out in the disadvantage number one, the researcher may not keep a regular or daily record. Fifth advantage is it can enhance the researchers' depth of cultural, political and

social understanding whereas the disadvantage is the contents of solicited diaries can be subjective and idiosyncratic.

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These are the applications of research diaries in development research. For example, in the case of bodily health practices and attitudes, aftermath of war, conflict and violence, and in the case of marginalized social groups. Examples of bodily health practices and attitudes- use of sexual diaries as a research tool alongside interviews now in AIDS research, more reliable and valid information than interviews. In the aftermath of war, conflict, violence, writing diaries is a therapeutic process, a better space for raising traumatic personal issues in a focus group, and also as a means of building a relationship with the marginalized and stigmatized social groups, raises important issues that the research does not plan to address.

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Leisure period durations in minutes per day by employment and child status

	Weekdays		Weekends	
	Men	Women	Men	Women
Employed full time				
Young children	142	124	195	176
Older children	186	151	283	190
No children	202	166	314	246
Employed part time				
Young children		140		138
Older children		139		185
No children		139		192
Other				
Young children	219	132	292	143
Older children	322	137	318	176
No children	265	195	336	258

Source: Jonathan Gersbuny and Oriol Sullivan (1998), "The Sociological Uses of Time-use Diary Analysis", European Sociological Review.

These certain examples that I have put. This is as to enable the students, the learners to look at how diary methods final findings may look like. This is a paper on the sociological uses of time use diary analysis taken from the European Sociological Review Journal. This tabulation tells us leisure period durations and minutes per day by employment and child status. The leisure periods during weekdays and weekends in terms of minutes.

In the case of men and women employed full time- for young children, older children and no children. So for those who are employed full time, the leisure period duration for men is those who have younger children, the leisure period is 142, 124, older children 186, 151, no children 202, 166. So clearly what is being shown here is that the more the numbers of children or younger children, the leisure periods decline. In the case of no children, the leisure periods are 202 minutes, but it declines to 142 minutes in the case of men, when it is younger children.

Similarly in the case of women having no children during weekdays, but for those who are employed full time, the leisure periods of 166 minutes and it goes down to 124 minutes. Notice the difference between men and women here. In the case of men having no children, the leisure time is 202 minutes, 160 minutes. 66 minutes in the case of women, which clearly gives us an indication that the burden of work is more on women irrespective of whether they have children or do not have children. Although those in the cases of children, even here, where the men are of course, sharing a lot of burden, but between men and women, the burden is more on women.

In the weekends, these are the leisure in terms of minutes. Again, the number of leisure time reduces in terms of the age of children, among men and women, but women seem to have less leisure time than men. In the case of employed part time as you see, again, these are the numbers for men and women and for others, these are the numbers. This is one of the important ways of looking at time burden, with respect to men and women and time use diaries are a very important methods of enquiry in the case of diary research methods.

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Please fill out during YOUR Diary Day

#	Start Time	Activity (Please don't record travel)	End Time
1	3:00am		
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Please turn to the next pages for more help and fill in each Activity Page and "How I Got Here" page for each line you filled in on this page.

This is an example of how to maintain a diary day with respect to any activity that is being undertaken. These schedules can be provided to respondents who can fill in their activity status throughout the day. And these kinds of dairy method can be undertaken for over a period of time let us say one week or one month, after which activity schedules can be prepared by the researchers, which contains start time of an activity, the activity concern and what is the end time. And these are these schedules are increasingly being used in the case of time use diary methods.

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An example of a daily food diary

Daily Food Diary

By Vertex42.com

<https://www.vertex42.com/ExcelTemplates/food-diary-template.html>

Let us end this lesson with this example of a daily food diary. This is a copyrighted material which is in the form of an template of maintaining a food diary provided by vertex 42.com.

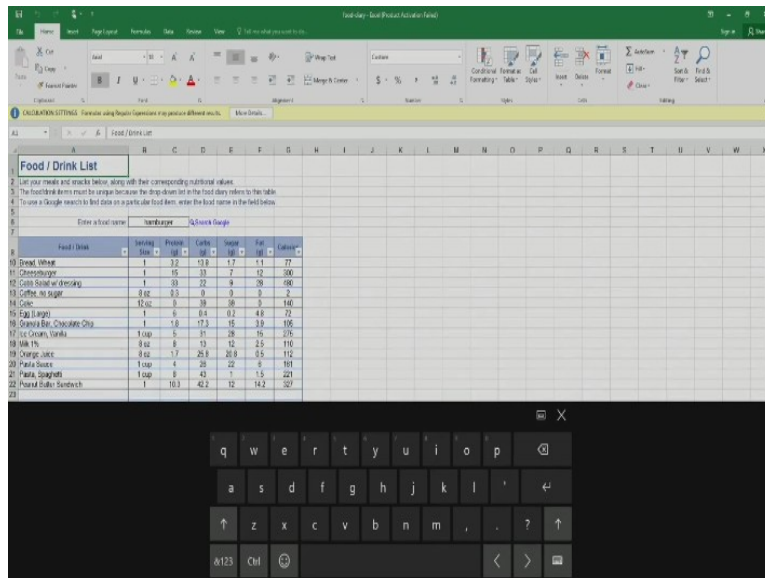
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The screenshot shows an Excel spreadsheet titled "Food Diary" with a green header bar. The spreadsheet is divided into several sections:

- Header:** "Daily Calorie Goal: 2150" and the Vertex42 logo.
- Table:** A table with columns: "Food/Drink", "Amount", "Serving Size", "Protein", "Carbs", "Sugar", "Fat", and "Calories". The first row contains "1 Peanut Butter Sandwich" with values: 1, 1, 10.3, 42.2, 12, 14.2, 327.
- Summary Row:** "DAILY TOTAL Calories (including 100)" with values: 10.3, 42.2, 12, 14.2, 327.
- Instructions:** A text box on the right side of the spreadsheet provides instructions for using the template, including: "1) Enter your daily calorie goal at the top of the worksheet", "2) Enter the date in the cell to the left of the table", "3) For each food/drink item in the table: a) Enter the amount (if it's needed) - i.e. Jack's D=1 Glass, S=2 Oats, b) Choose a Food/Drink from the drop down list or write it manually", and "4) Enter the # of servings (the number facts will be one time as a multiplier)".

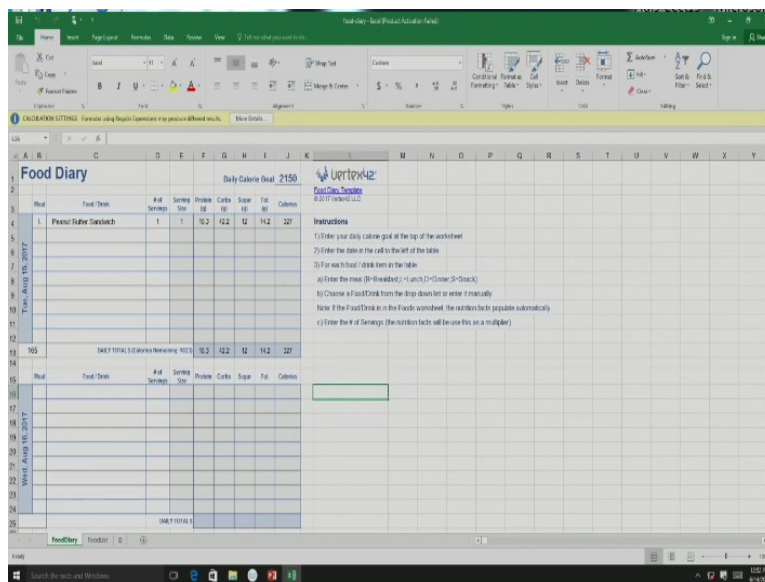
If we look at this, you would see that this is a food diary which is maintained.

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One sheet maintains the food list, what is the serving size, the protein quantity which we get out of that food, carbohydrates, sugar, fat and the total number of calories.

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And we can maintain food list here. So let us say we were looking at lunch meal on a certain date, if we include the rice, number of servings that is say two, serving size, let us say 2, and then depending upon the food list, the details on proteins, carbohydrates, sugar, fat, etc that we have, we can do a calculation and then enter the details here. That helps us to determine what is the

calorie intake for the food that has been taken and these kinds of diaries can be maintained for over a period of time. That can help us determine what is total calorie consumption. And these details can be collected for men, women and children, by their physiological status, by their work activity status and then we can probe them further and bind them with other calculation based upon reference group categories and come up with the calorie consumption status of a household. And these are methods that are regularly used by food researchers or researchers that focus on consumption and dietary patterns and so on.

So we have come to the end of this lesson on case studies and diary research methods. Hope this lesson has given you a snapshot view of what are the things that needs to be kept in mind when we are employing case study and diary research methods. And as I have repeatedly pointed out the distinctions of qualitative and quantitative research does not really apply to case study and diary research methods as researchers of different hues have been using these methods of enquiry and data collection procedures. And depending upon the expertise of the researcher and the consistency and the patience shown by the researcher, the best results can also be found from specific case studies and diary methods employed.

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References used for this lecture

- Vandana Desai and Robert B. Potter, "Doing Development Research", 2006, Sage Publications.
- Dawson R. Hancock and Bob Algozzine "Doing Case Study Research A practical Guide for Beginning Researchers", 2006, Teachers College Press, Columbia University.
- Sophie Laws, Caroline Harper and Rachel Marcus, "Research for Development A Practical Guide", 2003, VISTAAR Publications.
- Bridget Somekh and Cathy Lewin, "Research Methods in the Social Sciences", 2005, Sage Publications.

For a comprehensive literature on the topics covered in this lecture it is also suggested that students go through the reference list of the above cited papers.

These are the references that I have used for this lecture and as always, for a comprehensive literature on the topics covered, I encourage the students to look up the citations and reference in each of these references that I have mentioned. I will see you in the next class. Thank you.