

**Development Research Methods**  
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**Module No # 01**  
**Lecture No # 02**

**Types, Forms and Processes of Development Studies Research**

Hello and welcome to week 1 and lesson 2 of the NPTEL MOOC's course on development research methods. In today's lesson, we will look at the different types, forms and processes of Development Studies research. In the last class, we have dealt with the fact that Development Studies is multifaceted in nature and different social sciences engage with issues related to Development Studies. And in as much as Development Studies is multifaceted, the types and forms and processes of research that engage with development issues are also bound to be multifaceted. So, what we will cover in today's lecture are as follows.

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What we will cover in today's lecture

- I. What are the different types, its characteristics and forms of Development Studies?
- II. What are the purpose, goals and focus of research in Development Studies?
- III. What are the Research Methods and Possible Combinations in Development Studies?
- IV. Research Process and Research Plan.

First, we will look at what are the different types, characteristics and forms of development Studies. We will also look at what are the purpose, goals and focus of research in development studies, what are the research methods and possible combinations in development studies, and ultimately, we will have a brief overview of what are the research processes and research plan

that is to be kept in mind when researching a development question. So, today's lecture will be in four parts and finally, we will summarize.

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### I. Types and Forms of Development Studies

Development Studies, in the current context, deal with international development cooperation from a social science perspective, and involve collection of primary data and field studies in different cultural settings.

- Practitioners from many disciplines-geographers, economists, sociologists, etc. are involved in development studies.
- Influence of ethnography is evident.
- A set of concerns which prompt the need for development studies and research:
  1. The nature and causes of global and local inequity, and conditions and contexts which influence mitigation development interventions (external factors)
  2. Pre-conditions pertaining to development cooperation and interventions (internal factors).
  3. The consequences, effects and impact of development cooperation.
- Development work is concerned with applied research, i.e., studies aimed at producing knowledge on which decisions can be made.

Now, conceptually and theoretically, Development Studies cover a very wide range of issues. And a common denominator in the current context is that Development Studies deal with international development cooperation from a social science perspective. And that involves primarily collecting data from the field or what we know as field studies or primary data collection. But of course, this happens given the different cultural settings that researchers work in.

Now, the range of types, topics and forms- they rather seem unlimited and a variety of methods are being used to collect and analyze the data. For example, field studies imply that studies are set amongst the people who are subjects of a study or intervention. And today practitioners from many disciplines- geographers, economists, sociologists, political scientists and so on, they are involved in development studies, but the primary influence seems to be that of ethnography, which is nothing but a description of peoples or cultures. And ethnography generally prefers a very holistic approach to understanding the research question, because it stresses on processes, relationships, connections and interdependency among the component parts. And in the area of

development cooperation, there are a set of concerns which prompt the need for Development Studies and research. We can highlight them under three characteristic features.

One is that the nature and causes of global and local inequality and the conditions and contexts which influence mitigation, development, and intervention. There are certain external factors which provoke us to study the development question. For example, the global and local inequality context that we are talking about. Secondly, there are certain preconditions that are internal factors, which pertain to development cooperation and interventions. And thirdly, there are consequences, effects and impact of development cooperation.

Now, to do qualified development work, there is a need for knowledge in each of these areas that has been outlined - the nature and causes, preconditions, consequences, effects, and impact which can be derived from different types of studies. So, for example, we have policy studies, we have studies relating to sectors and to cross-cutting issues such as poverty, gender and governance, baseline studies, reviews, monitoring and evaluation studies and so on.

Development work, it is being said is primarily concerned with applied research and the applied research as opposed to basic research in the social sciences basically means that, you are conducting a kind of research on which decisions are being made. And therefore, the primacy or the significance of Development Studies research. And these kinds of research where decisions are supposed to be made are taken at various levels, these kinds of research are inquired at various levels. For example, you can have a macro level study, you can have a meso level study- a very sectoral level study, or a micro level study. And given the kind of focus that we have, whether it is at the macro level, at the meso level, or at the micro level, there are different kinds of approaches that are kept in mind when looking up questions of development studies.

Now, some of the categories that are broadly followed when we come to different types of development studies are as follows;

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## Types of Development Studies

1. **Descriptive Studies:** Characterised simply as the attempt to determine, describe or identify *what is*. Example: government sponsored research including the population census, the collection of a wide range of social indicators and economic information.
2. **Explanatory Studies:** focuses on *why* questions. Answering the 'why' questions involve developing causal explanations.
3. **Interpretative Studies:** Interpretative researchers believe that the reality consists of people's subjective experiences of the external world. Interpretivism focuses on exploring the complexity of social phenomena with a view to gaining understanding.
4. **Action-oriented Studies:** Action Research is the super ordinate term for a set of approaches which, at the same time, systematically investigate a given social situation and promote democratic change and collaborative participation. *Participatory Action Research, Critical Action Research, action learning, participant inquiry and cooperative inquiry* are the terms broadly underpinned by the assumptions and approaches embodied in AR.

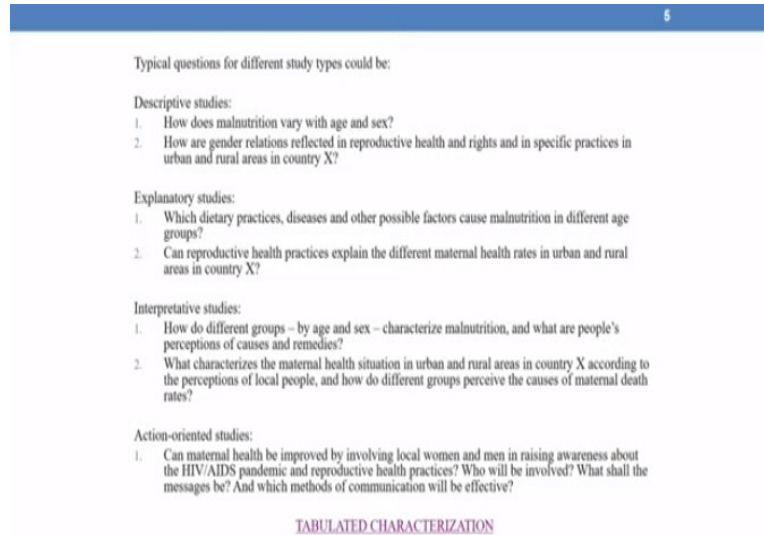
They are descriptive studies, explanatory studies, interpretative studies and action-oriented studies. Descriptive studies simply ask the question or they are characterized by an attempt to determine or describe or identify “what is”. So they are concerned with the ‘what is’ question. For example, government sponsored research which includes population census or a collection of wide range of social indicators and economic information. Now, many people dismiss descriptive research as mere description. That good description is fundamental to the research enterprise and it has added immeasurably to our knowledge of the shape and nature of our society. Good description basically provokes the ‘why’ questions of explanatory research which usually follows descriptive studies. So explanatory studies focus on the ‘why’ questions, while the descriptive studies focus on the ‘what’ questions.

So explanatory studies are answering the ‘why’ questions which involve developing the causal explanation. Interpretative studies briefly fall within the domain of what is loosely put together as qualitative studies. Interpretative researchers believe that the reality consists of people's subjective experiences of the external world and therefore, they focus on exploring the complexity of social phenomenon with a view to gaining understanding.

A fourth kind of research, which has made its inroads into Development Studies in a huge manner is what is referred to as action-oriented studies, which have an action component and a research component to it. So, action research is considered to be a superordinate term for a set of approaches, which at the same time systematically investigate a given social situation and

promote democratic change and collaborative participation. And some of the different kinds of action research that are followed are what is referred to as participatory action research, critical action research, action learning, participatory inquiry, cooperative inquiry, and so on.

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Typical questions for different study types could be:

**Descriptive studies:**

1. How does malnutrition vary with age and sex?
2. How are gender relations reflected in reproductive health and rights and in specific practices in urban and rural areas in country X?

**Explanatory studies:**

1. Which dietary practices, diseases and other possible factors cause malnutrition in different age groups?
2. Can reproductive health practices explain the different maternal health rates in urban and rural areas in country X?

**Interpretative studies:**

1. How do different groups – by age and sex – characterize malnutrition, and what are people's perceptions of causes and remedies?
2. What characterizes the maternal health situation in urban and rural areas in country X according to the perceptions of local people, and how do different groups perceive the causes of maternal death rates?

**Action-oriented studies:**

1. Can maternal health be improved by involving local women and men in raising awareness about the HIV/AIDS pandemic and reproductive health practices? Who will be involved? What shall the messages be? And which methods of communication will be effective?

TABULATED CHARACTERIZATION

Now, if we have to look at typical questions that form the subject matter of these kinds of studies that was just outlined, they could be looked at as follows. For example, if we are studying the issue of malnutrition, the problem of malnutrition in a certain community and following the approaches of descriptive, explanatory, interpretative, or action-oriented research, the questions can be posed in the following manner. For example, for descriptive studies, the questions could be ‘how does malnutrition vary with age and sex?’. You are simply looking at the association between age and sex, and nutrition or malnutrition. A second question could be ‘how are gender relations reflected in reproductive health and rights and in specific practices of the urban and rural areas in a certain country?’.

Explanatory studies would rather look at the causal relationship between two or more variables. So, one of the questions could be ‘which are the dietary practices, diseases, and other possible factors that cause malnutrition and different age groups?’. There can also be a question with regard to ‘can reproductive health practices explain the different maternal death rates in urban and rural areas in country?’.

Interpretative studies go into more in-depth characterization of the nature of nutrition or malnutrition faced by the community that we are locating our study in. So, some of the questions could be as to number one, ‘how do different groups, if we are segregating them by age and sex, characterize malnutrition and what are people's perceptions of causes and remedies?’. So, the moment we talk about people's perceptions, the focus here is on the subjective realities of the subjects concerned. So, it is a subject’s point of view which adds a lot of importance when we are looking at the interpretative studies. Similarly, with regard to perceptions, a second question could be ‘what characterizes the maternal health situation in urban and rural areas in a certain country according to the perceptions of local people and how do different groups perceive the causes of maternal death rates?’.

With regard to action-oriented studies, the question, because here the researcher and the subject are collaborators and they are looking at the development question in the form of collaboration, a question could be ‘can maternal health be improved by involving local women and men in raising awareness about say HIV AIDS, pandemic and reproductive health practices?’, ‘who will be involved?’, ‘what shall the messages be?’, and ‘which methods of communication will be more important?’.

So, here in case of action-oriented research, it is important to understand that the researcher and the subject are in a constant dialogue with each other, and their dialoguing with each other provides different kinds of research questions, that is inquired through the action research method. And also, it is ensured whether people involved as collaborators are bringing about an element of social transformation or change in the question that is being pursued.

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Characteristics of Different Types of Studies				
Types of Studies	Descriptive Studies	Explanatory Studies	Interpretative Studies	Action-oriented Studies
Key Questions	How does X vary with Y?	Which X causes Y? (In which Y are caused by X?)	What is X? Or how does Y interpret the phenomenon X in a given context Z?	How do people act in accordance with knowledge accumulated/disseminated in the course of the research process?
Typical Design	Survey Enumeration	Experimental	Case-study	Action research Formative evaluation
Criteria of Data Quality	<ul style="list-style-type: none"> <li>Reliability</li> <li>Validity</li> <li>Precision</li> <li>Generalizable</li> </ul>	<ul style="list-style-type: none"> <li>Reliability</li> <li>Validity</li> <li>Precision</li> <li>Generalizable</li> <li>Prediction</li> </ul>	<ul style="list-style-type: none"> <li>Validity</li> <li>Totality</li> <li>Mime</li> <li>Conceptual reinterpretation or knowledge production</li> </ul>	<ul style="list-style-type: none"> <li>Validity</li> <li>Does learning and change take place?</li> <li>Does change take the desired directions?</li> </ul>
Dominant Perspective	Researcher's	Researcher's	The study subjects	The study object is in dialogue with the researcher
Typical result presentation	Figures and tables and analysis	Figures and tables and analysis	Narrative, quotes, pictures and interpretation	Conversations
Researcher-Relationship	Characterized by <ul style="list-style-type: none"> <li>Distance</li> <li>Value neutrality</li> <li>External relationship</li> </ul>	Characterized by <ul style="list-style-type: none"> <li>Closeness</li> <li>Multiple values</li> <li>External relationship</li> </ul>	Characterized by <ul style="list-style-type: none"> <li>Closeness</li> <li>Multiple values</li> <li>Internal relationship</li> </ul>	Characterized by shifting closeness and distance
Primary target group/users	<ul style="list-style-type: none"> <li>Public/private agencies</li> <li>Research community</li> </ul>	<ul style="list-style-type: none"> <li>Public/private agencies</li> <li>Research community</li> </ul>	<ul style="list-style-type: none"> <li>Users outside the research community</li> <li>Sections of the public</li> <li>Research community</li> </ul>	Integrated into single organizations and groups
Application of results	<ul style="list-style-type: none"> <li>Application detached from the study's internal methods</li> <li>Data base, simulation</li> <li>Instrumental</li> </ul>	<ul style="list-style-type: none"> <li>Application detached from the study's internal methods</li> <li>Data base, simulation</li> <li>Instrumental</li> </ul>	<ul style="list-style-type: none"> <li>Application detached from the study's internal methods</li> <li>Conceptual</li> </ul>	<ul style="list-style-type: none"> <li>Application integrated into the study methods</li> <li>Instrumental/conceptual</li> </ul>

I have provided certain tabulation of the different characteristics of the research, different kinds of studies that are taken up. One of the useful ways of looking at it would be as follows. So, in terms of the key questions that are being asked by these different kinds of studies, descriptive studies are asking the question, 'how does X vary with Y'. So, if there are two variables X and Y, let us say Y is malnourishment or undernutrition and X are determinants- are the age and sex of the people that are being inquired into. So, the basic question could be that, 'how does X vary with Y'.

Explanatory studies are looking at causal relationship between X and Y. So, the key question could be, 'which X causes Y', or 'which Y are caused by X', which are the actual determinants that bring about. So, in the context of malnourishment studies or undernutrition studies the question could be 'which are those determinant factors which contribute more to undernutrition than the others?'. Interpretative studies focus on the question of 'what is X or how does Y interpret the phenomenon X in a given context Z?'. And action-oriented studies focus on how do people act in accordance with knowledge accumulated or disseminated in the course of the research process. So, these are the key questions to ask when we are looking at these different kinds of studies.

In terms of a typical design, what is the research design that is followed or taken up to follow these kinds of studies. Descriptive studies usually follow a survey enumeration method, sample survey techniques. Explanatory studies follow an experimental method. This also includes

different kinds of regressions carried out to understand the causal relationship between the determinants and the dependent and the independence that we have taken up. Interpretative studies usually follow the case study route and action-oriented studies follow an action research formative evaluation route, which I will be elaborating on presently.

Now, there are certain criteria of data quality that are kept in mind when we are judging how robust the data that is emerging from these kinds of study are. The data criteria for descriptive studies and explanatory studies are more or less similar, the focus is on reliability, validity and precision and generalizability. For explanatory studies, there is an additional component of 'how best the present study can predict the outcome', so, there prediction is an important characteristic of explanatory studies. With regard to interpretative studies, the focus is in validity and conceptual reinterpretation or knowledge production, whether the study that has been carried out is contributing to the existing knowledge. So, whether sufficient knowledge production takes place through the case studies that have been taken up.

Action oriented studies focus the criteria of data quality is validity. Second is 'does learning and change take place?'. So, in action-oriented, which is quite different from the other three kinds of studies that are outlined here, action research component focuses a lot on 'does an element of transformation take place or not?'. Is there an element of change that is taking place while the research is being undertaken? And also, does change take the desired direction? Is change taking the desired directions given the framework within which this research component has been carried out?

What is the dominant perspective with regard to each of these studies? The dominant perspective with regard to descriptive studies is that of the researchers, exploratory studies is the researchers. Interpretative studies focus a lot on the subjective experiences of the study subjects and therefore the dominant perspective is that of the subjects that are being studied. And with action-oriented studies, the study object is in a dialogue with a researcher. So the subjects are constantly dialoguing with the researcher and new research questions are being framed in the process. So, the dominant perspective is that of the dialogue that is happening between the subjects and the researcher.



In terms of typical result presentation, descriptive and explanatory studies follow figures and tables, interpretative studies focus on narratives, quotes, pictures and interpretations, and action-oriented studies have a combination of all of these. In terms of the researcher-research relationship for descriptive studies, it is important that there is some kind of a distance or value neutrality or there is an external relationship between the researcher and the subjects that are being studied, so the researcher is looking at the subjects in a very objectively and it is a very objective description of how things are or what things are.

In the case of explanatory studies, there is an external relationship, but there are multiple variables that are being investigated into with regard to what has an effect on the question that we are inquiring into. Interpretative studies are characterized by closeness and there is an internal relationship because the researcher gets to know the subjective experiences of the cases that are being studied. And action-oriented studies are characterized by shifting closeness and distance because the relationship or the collaboration between the researcher and the subjects also keep changing as the research progresses.

And who are the primary target group or users in each of these studies? For descriptive studies, the public and private agencies and research community. Similarly, for explanatory studies. And for interpretative studies, users outside the research community, development practitioners are a lot interested in interpretative studies because it gives them a lot of material to enable them to carry out interventions if required in those communities, also, the research community. And action-oriented studies are integrated into single organizations and groups.

What are the applications of results? For descriptive studies, application is detached from study's internal methods. It is based upon database's simulation, instrumental. The same with explanatory studies. Interpretative studies are more conceptual in nature. Therefore, application is detached from the study's internal methods, and for action-oriented studies, application is integrated into the study methods.

So, this is a brief characterization of how we can approach the research question when keeping in mind different kinds of studies that can be adopted.

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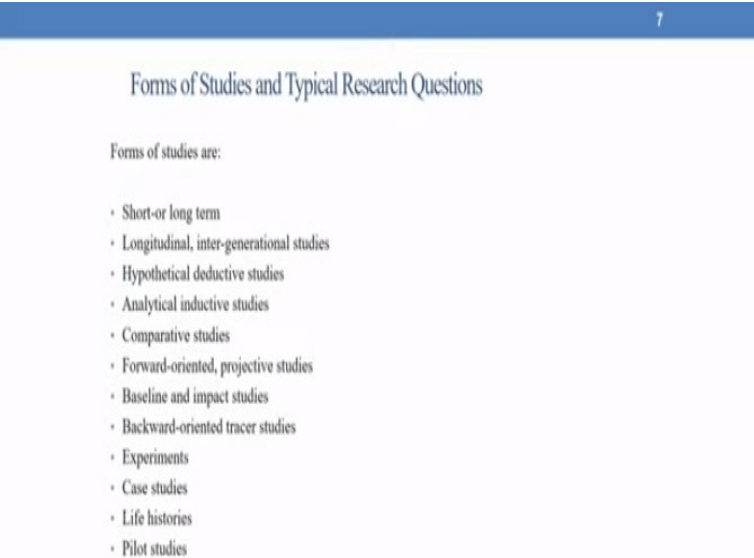
- It is important for the development researcher and practitioner to be conscious of and critical about which types of studies they engage in.
- Paradigm: 'the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways'.
- Behind any study and process of inquiry are meta-science questions:
  - ✓ The ontological question: What exists? What is the form and nature of reality and, therefore, what is there that can be known about it?
  - ✓ The epistemological question: What is (or should be) regarded as acceptable knowledge about what exists - 'what can be known'?
  - ✓ The methodological question: How can the inquirer go about finding out whatever he or she believes can be known?

Now, it is important for the development researcher and practitioner to be conscious of and critical about which types of studies they engage in, because the type of study in which we engage, its purpose, focus, and intended results have clear consequences for how we go about collecting data and analyzing those data. And therefore, it is important to keep in mind the paradigm or the paradigmatic considerations should be born in mind before undertaking the research activity that is being contemplated upon. What is the paradigm here? The paradigm very briefly speaking, is the basic belief system, a worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways. I will presently come to what do these terms ontology and epistemology mean in the context of development research methods.

Now behind any study and process of inquiry, there are certain meta science questions which brings us to the question of ontology and epistemology. What are meta science questions? Meta science questions are basically a scientific approach to studying the social science that is being talked about here. So, the ontological question asks, 'what exists', what is the form and nature of reality and therefore, what is there that can be known about the research question that we are pursuing. The epistemological question is asking 'what is or should be regarded as acceptable knowledge about what exists or what can be known'. And the methodological question allows the inquirer to go about finding whatever he or she believes, can be known.

So, keeping in mind all of these three questions- the ontological, epistemological and the methodological question, different forms of studies have been adopted by Development Studies researchers.

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### Forms of Studies and Typical Research Questions

Forms of studies are:

- Short-or long term
- Longitudinal, inter-generational studies
- Hypothetical deductive studies
- Analytical inductive studies
- Comparative studies
- Forward-oriented, projective studies
- Baseline and impact studies
- Backward-oriented tracer studies
- Experiments
- Case studies
- Life histories
- Pilot studies

Some of these studies are outlined as follows on this slide. So, you can have short or long-term studies. Long term studies are also referred to as longitudinal or inter-generational studies. There are hypothetical deductive studies, analytical inductive studies, comparative studies, forward-oriented projective studies, baseline and impact studies, backward-oriented tracer studies where the focus is on the historical evolution of the question that we are trying to answer, experiments, case studies, life histories, pilot studies and so on. But in terms of the methods of being able to carry out these different forms of studies, there are a multitude of approaches to be able to do these kinds of study, whether it is a short-term study or a long-term study, there are different approaches that can be adopted for taking these kinds of studies. Some of them may be outlined as follows.

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In terms of methods, the applied development studies encompass a multitude of approaches:

- Documentary studies
- Qualitative studies, participant observation and participatory studies, semi-structured interviews.
- Quantitative studies, sample surveys, empirical, statistical studies
- The comparative method-moving beyond qualitative and quantitative strategies?
- Culturally-adapted development market research.

Project related studies make use of qualitative, and often participatory methods while policy related studies tend to make use of quantitative research methods, expert interviews and statistical methods.

So, you can follow documentary studies. Qualitative studies are usually followed for participant observation, and through semi-structured interviews. There are quantitative studies carried out based upon sample surveys and other statistical approaches. Comparative method which moves beyond this qualitative-quantitative binary and tries to look at mixed methods approaches, where sometimes the qualitative is the dominant model and sometimes the quantitative is the dominant model. And at times both qualitative and quantitative go sequentially, we move sequentially from qualitative to quantitative or vice versa. There are also culturally adopted development, market research methods that have been developed as part of the Development Studies research.

Now, each of these methods that are mentioned here apply a variety of techniques and tools and they benefit from the inclusion of a historical dimension. And the general rule is that project related studies make use of qualitative and participatory methods, while policy related studies tend to make use of more quantitative research methods, expert interviews, and statistical methods.

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## Studies applied in different project cycle stage

Studies applied in the different project cycle stages took prominence with the streamlining and phasing of development aid projects from the 1980s. Studies relating to sector programmes follow a cycle:

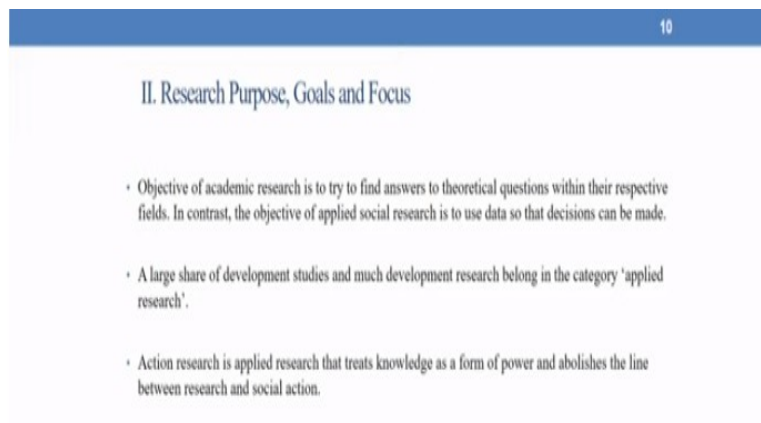
- Identification studies
- Design and pre-appraisal studies
- Feasibility studies
- Appraisal studies
- Review studies
- Monitoring studies
- Evaluation and impact studies
- Baseline studies
- Participatory development studies
- Advocacy studies

Now, different kinds of studies have been applied in different project cycles, starting from the period of the 1980's where there was a lot of development aid projects coming in. So, depending upon the project cycle, different kinds of studies have been carried out relating to the sectoral programs that are followed. For example, within a certain project depending upon the project cycle, one or more of such kinds of studies may be taken up. For example, identification studies, design and pre-appraisal studies, feasibility studies, appraisal studies, review studies, monitoring, evaluation-impact studies, baseline participatory development studies, and advocacy studies. Now, one of the most significant recent shifts in emphasis is towards macro-economic policy and sector specific studies with explicit focus on the context. So, participatory development studies have been emphasized as one kind of study method that is being taken up increasingly in the domain of different development projects. Advocacy studies is also a type of action-oriented study which puts the researcher in a focal role as an intermediary between communities and authorities or aid organizations to pledge for a particular and often conflict-ridden issue, which is ideally with active local participants.

Now, what is the research strategy that best suits the complexity of the research question that is taken up? That will depend upon the researcher's rationality and also the context within which the research question is being pursued. And therefore, typically a combination of different methods is taken up to be able to design a proper research study.

So, in the first part of this lecture, we looked at the different types of research studies that are taken up, when we are investigating the development question. And generally, the types that are followed are based upon descriptive, explanatory, interpretative and action-oriented strategies. And each of these strategies are guided by a certain worldview that they are coming from. So, each of these strategies are guided by certain paradigmatic considerations and that needs to be kept in mind when we are initiating these kinds of research.

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Now let us come to part two of this lecture where the focus is on what is the research purpose and the goals when we are taking up Development Studies questions. Now, the objective of academic research when we are taking up academic research, whether it is by sociologists or economics or anthropologists, we are trying to find answers to theoretical questions within their respective fields. But if we contrast it with the objective of applied research, for example development studies, we will see that we are trying to use data so that we can take decisions on them. So, a large share of Development Studies and much development research basically belong in the category of what is called applied research. And there is a distinction that is made between applied research and basic research and action research. And let us look at some of these distinctions.

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A Typology of Research Types, Purposes, Focus and Desired Results 11			
Types of Research	Purpose	Focus of Research	Desired Results
1. Basic Research	Knowledge as an end in itself; discover truth	Questions deemed important by one's discipline or personal intellectual interest	Contribution to the theory
2. Applied Research	Understand the nature and sources of human and social problems	Questions deemed important by society	Contributions to theories that can be used to formulate problem solving programmes and interventions
3. Summative evaluation	Determine effectiveness of human interventions and actions (programmes and policies)	Goals of the intervention	Judgements and generalizations about effective types of interventions, and the conditions under which those efforts are effective
4. Formative evaluation	Improving an intervention; a programme, policy, organization, or product	Strengths and weaknesses of the specific programme, policy, product.	Recommendations for improvements
5. Action research	Solve problems in a programme, organization, or community	Organization and community problems	Immediate action; solving problems as quickly as possible

This is a very useful tabulation in which basic research, applied research, summative evaluations, formative evaluations and action research has been put together focusing on what are the desired results of each of these types of research, the purpose, and their focus. Now, beginning with basic research, basic research is necessary to develop and question concepts and theories and to bring new perspectives into the development discourse. For example, with escalating globalization, there is a need for new insights through basic research and perhaps with a more cross disciplinary perspective on say for example, migration, environmental degradation, protection, conflict resolution, and so on. So, basic research findings substantially enrich applied research or strategic research. So, the purpose of basic research is to discover the truth. So, it is knowledge creation or production of knowledge.

The focus of research is by routing the questions that are important to one's subject discipline or personal intellectual interest. And, basic research findings definitely contribute to the larger theory that is informing the basic research. The purpose of applied research, as I keep saying is, the focus here is more on what decisions need to be taken based upon the applied research that have a direct relevance to the social problem that we are studying. So, the purpose here is to understand the nature and sources of human and social problems and the focus is on questions that are deemed important by society. For example, if we are dealing with the issue of hunger and malnutrition in India, and because nutrition is an important question that is deemed important by the society. So, some of the questions that we need to ask for example, in the

present context is as to why the percentage of wasting in India has risen over a period of time, what are the determinant factors that have contributed to the rise of wasting which is weight by age in India, So, that is an applied research question and the possible answers to these kinds of questions will also contribute to policy formulation. In terms of the desired results, the contributions to theories that can be used to formulate problem solving programs and interventions.

The third and the fourth types of research- summative evaluation and formative evaluations of something which are much in use by government organizations and various international civil society organizations, where they take the research findings into account for designing various kinds of interventions or improving interventions. So, what is the purpose of summative evaluation? Summative evaluation determines the effectiveness of human interventions and actions in the context of certain programs and policies. And the goal of these kinds of summative evaluation is to intervene. And the desired results are that of judgments and generalizations about effective types of interventions and the conditions under which those efforts are effective. Formative evaluations recommend improvements upon the interventions that can be worked on. Action research purpose is to solve problems in a certain program, organization or community and the desired results are that of immediate action, solving problems as quickly as possible.

Now, one thing to remember here is that there are no sharp divisions between these different research types and all of the examples focus on community groups, but the purpose of each type of research and the questions asked are quite different. The questions asked depends on what the study is trying to accomplish, for example, to explore a new topic or new aspects to describe a social phenomenon, a situation or a conflict or to explain why something occurs or could be brought about to occur. So, the study goal will influence whether the complimentary perspectives of combining different questions will be chosen in a given situation.

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- Basic research is necessary to develop and question concepts and theories and to bring new perspectives into the development discourse.
- Applied and strategic development research aims to provide knowledge on which the best decisions can be made.
- Summative evaluation research is retrospective, summing up the experience of certain interventions.
- Formative evaluation research is formative in suggesting how to improve interventions.
- Action research is applied research that treats knowledge as a form of power and abolishes the line between research and social action.

So, if I have to sum up all of these different kinds of research quickly, basic research is necessary to develop and question concepts and theories. So, it is contributing to the process of knowledge production. Applied and strategy development research aims to provide knowledge on which the best decisions can be made. Summative evaluation is retrospective and it sum up the experiences of certain interventions. You can look at them as program evaluation studies or monitoring and evaluation studies. Formative evaluation is formative in suggesting how to improve interventions. And, action research is applied research that treats knowledge as a form of power and abolishes the line between research and social action. So, if you have to take examples, if we have to exemplify further these different kinds of research, what are the questions that can fit into these kinds of research?

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Purpose and Types of Research Questions illustrated with an example

Basic Research	What are the variations in types of community groups and what functions do the variations serve?
Applied Research	What is the participation rate among different kinds of community groups in non-agricultural income generating activities? What explains the different rates of participation among the different groups?
Summative Research (Effectiveness)	What is the effectiveness of a national-or donor-aided training programme on small enterprise management for different community groups?
Formative Research (Performance)	How can the training programme on small enterprise management be improved and adjusted to the benefit of different community groups?
Action Research	To determine how community groups can start and organize themselves around small enterprise activities, a process involving the start-up of concrete activities would be studied.

So, for example, basic research will ask the question, what are the variations in types of community groups and what functions do the variations serve. And these kinds of basic research contribute to the knowledge systems within the discipline. Applied research might ask the question, for example, what is the participation rate among different kinds of community groups in non-agricultural income generating activities? What explains the different rates of participation among the different groups? Summative research focuses on effectiveness, because it is mostly in the form of evaluation studies. So, they may ask the question, what is the effectiveness of a national or donor aided training program on small enterprise management for different community groups.

Formative research focuses on performance. So, the question could be, how can the training program on small enterprise management be improved and adjusted to the benefit of different community groups. Action research determines how community groups can start and organize themselves around small enterprise activities, a process involving startup of concrete activities could be studied as part of the action research.

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## Research Goals and Focus

- The most common academic 'position' in the social sciences- referred to as 'meta-science positions' are- positivism, interpretivism and critical realism.
- Positivism- Is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond.
- Interpretivism- Is an epistemological position that requires the social scientist to grasp the subjective meaning of social action.
- Critical realism- Is a realist epistemology which asserts that the study of the social world should be concerned with the identification of the structures that generate that world.

Now, from the practitioners' viewpoint, there are certain things that need to be kept in mind. I have spoken about epistemology or the paradigmatic considerations that need to be kept in mind when initiating Development Studies research. And broadly the paradigmatic considerations that we take are with respect to positivism, interpretivism and critical realism. These are the meta science positions with regard to the different kinds of research questions that we would like to inquire. So, what are these paradigmatic considerations? What is positivism? What is interpretivism? And what is critical realism?

Now, positivism is an epistemological position that advocates the application of the methods of natural sciences to the study of social reality and beyond. So, positivism is focusing more on what happens or it draws a close analogy with the way natural sciences perform. It is based on the assumption that there are patterns and regularities, causes and consequences in the social world just like there are in the natural world.

Interpretivism is an epistemological position which stands in opposition to positivism because it requires the social scientists to grasp the subjective meaning of social action. So, interpretivists would consider that the subjective reality of the person or the people on whom we are carrying out our research, cannot be abstracted from their objective realities. Whereas positivists would like to believe that reality of the subject that is being inquired into can be dealt with very objectively. So interpretivism is an epistemological position that requires the social scientist to grasp the subject meaning of social action, and it is closely linked with the concept of

phenomenology which is nothing but shows how particularly how social life is constructed by those who participate in it. It regards people as creative interpreters of events, and through their actions and interpretations they are agents who actively create an order to their existence.

Critical realism is a realist epistemology, which asserts that the study of the social world should be concerned with identification of structures that generate that world. So, in a way a positivist focuses more on hard facts, and therefore, consequently, the data collection will center on hard-data and therefore, the use of more and more of statistical techniques or survey methods to be able to capture data requirements of a certain community that are being studied. And therefore, the focus is on positivist epistemology there. In the interpretivism position the practitioner is in a more advantageous situation with regard to applying research results. The focus is on processes, processual changes and understanding. But the critical realism position, the focus of the study contains a normative aspect. Now, keeping these paradigmatic considerations in mind, and the different types of research keeping in mind, there are different kinds of possible combinations of research methods that can be carried out.

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### III. Research Methods and Possible Combinations

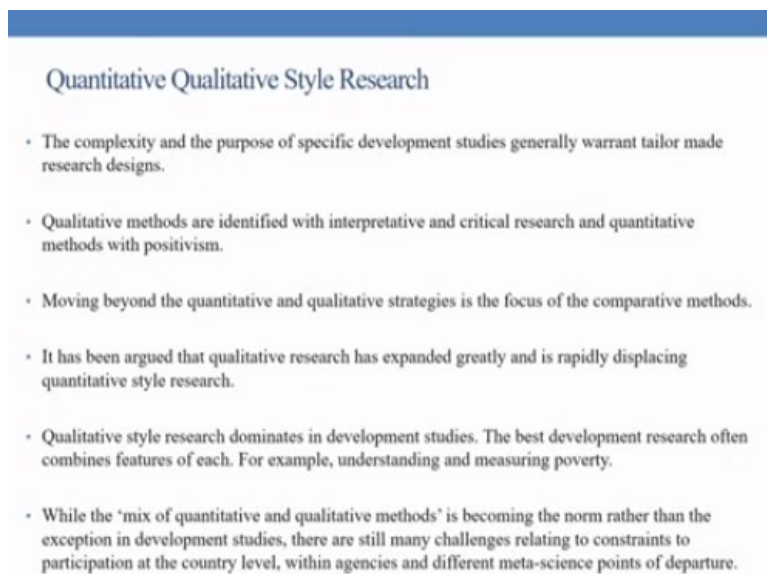
Q. How does one determine the appropriate research strategy to focus a particular study?

- \* In development studies the 'choice' is often between establishing trends or averages from which generalizations can be drawn.
- \* Besides the methodological considerations, a research strategy combines different methods.
- \* A distinction can be made between research methods, techniques and tools.

Now, I have already mentioned that research is about knowledge production. And we are seeking answers to questions through inquiry. But the question to ask is how does one determine the appropriate research strategy to focus a particular study? Now, the extent to which research

question is broad or narrow, will depend on the purpose, the resources available, availability of time, and the interests of those involved. In Development Studies, the choice is often between establishing trends or averages from which generalizations can be drawn. Besides the methodological considerations, a research strategy combines different methods and a distinction can be made between research methods, techniques and tools. Now, one of the first possible research combinations that can be carried out follows a continuum between the quantitative and qualitative style research.

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Quantitative Qualitative Style Research

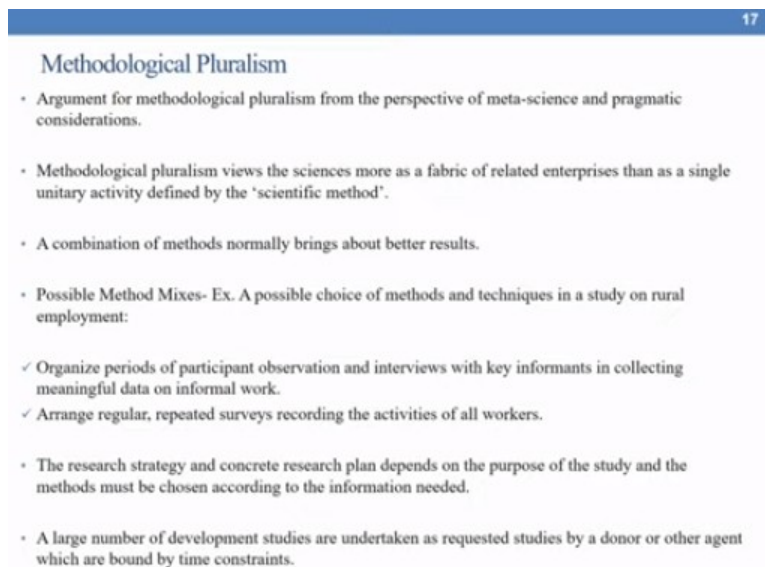
- The complexity and the purpose of specific development studies generally warrant tailor made research designs.
- Qualitative methods are identified with interpretative and critical research and quantitative methods with positivism.
- Moving beyond the quantitative and qualitative strategies is the focus of the comparative methods.
- It has been argued that qualitative research has expanded greatly and is rapidly displacing quantitative style research.
- Qualitative style research dominates in development studies. The best development research often combines features of each. For example, understanding and measuring poverty.
- While the 'mix of quantitative and qualitative methods' is becoming the norm rather than the exception in development studies, there are still many challenges relating to constraints to participation at the country level, within agencies and different meta-science points of departure.

The complexity and the purpose of specific development studies generally require tailor made research designs that cannot be defined a priori even for studies on similar themes. Between this continuum of quantitative and qualitative research, there are different possible combinations that can be carried out because of which we also have mixed methods strategies as a different strategy of research altogether. At the risk of overgeneralization, qualitative methods are identified more with interpretative, and critical research and quantitative methods are identified more with positivism. Many scholars have identified synergies between quantitative and qualitative methods. For example, for understanding and measuring poverty. It has been argued that qualitative research has expanded greatly, and it is rapidly displacing quantitative style research.

Both the quantitative and qualitative styles share basic principles of science, but the two approaches also differ in significantly different ways. Most quantitative data techniques are considered to be data condensers because the data is condensed to find out the big picture or have a sense of the big picture. Whereas qualitative data is considered to be data enhancers where more in-depth studies are being carried out in certain community contexts to be able to come up with a better understanding of the big picture.

But the best development research often combines features of both quantitative and qualitative techniques, as I just mentioned, because of which we have mixed methods approaches where qualitative and quantitative methods move sequentially or parallelly. So, there may be a dominant qualitative framework within the mixed method strategy that has been taken up or there may be a dominant quantitative strategy which has been taken up within the mixed method approaches that we want to study or they may be being carried out sequentially.

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### Methodological Pluralism

- Argument for methodological pluralism from the perspective of meta-science and pragmatic considerations.
- Methodological pluralism views the sciences more as a fabric of related enterprises than as a single unitary activity defined by the 'scientific method'.
- A combination of methods normally brings about better results.
- Possible Method Mixes- Ex. A possible choice of methods and techniques in a study on rural employment:
  - ✓ Organize periods of participant observation and interviews with key informants in collecting meaningful data on informal work.
  - ✓ Arrange regular, repeated surveys recording the activities of all workers.
- The research strategy and concrete research plan depends on the purpose of the study and the methods must be chosen according to the information needed.
- A large number of development studies are undertaken as requested studies by a donor or other agent which are bound by time constraints.

Now, this idea that there is a continuum of quantitative and qualitative style in research brings us to the idea of methodological pluralism, which is an argument which is forwarded from the perspective of meta science and pragmatic considerations. So, scholars have convincingly argued, keeping these things in mind, keeping the different contexts and research questions of the applied social sciences in the domain of development studies, scholars have convincingly argued

that methodological pluralism should be the focus, keeping the perspectives of meta science and pragmatic considerations. Because neither naturalism, which is the view that social sciences are methodologically similar to the natural sciences with causal explanations, nor anti-naturalism which argues that social sciences provide meaningful interpretations, are wholly persuasive.

Many argue that methodological pluralism, views sciences as a fabric of related enterprises than as a single unitary activity defined by the scientific method. And interesting results have been gained from the application of information on a given subject which is embedded in oral traditions, historical records, and local histories. So, what could be the probable possible method mixes? Let us take an example. Let us take a brief example to illustrate how a possible choice of methods and techniques in a study on rural employment can take turns. Suppose we need information on employment in a rural area and we are looking at patterns of employment in a farming community. To get a general picture we could organize periods of participant observation and interviews with key informants. And this initial exploratory research is important particularly, in collecting meaningful data on informal work. For more exact data, we can collect carefully timed single survey to interview farmers and other village workers. And alternatively, a well-resourced research project can include organizing observation surveys, recording the activities of all workers on a sample of farms and so on.

So, the research strategy and concrete research plan depends on the purpose of the study and the methods that must be chosen according to the information needed. And a large number of development studies are undertaken as requested, they are requested as studies by donor or other agent which are bound by time constraints. And therefore, sometimes it may lead to counterproductive results because of the limited duration within which studies are being concluded.

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## Interdisciplinary Perspectives

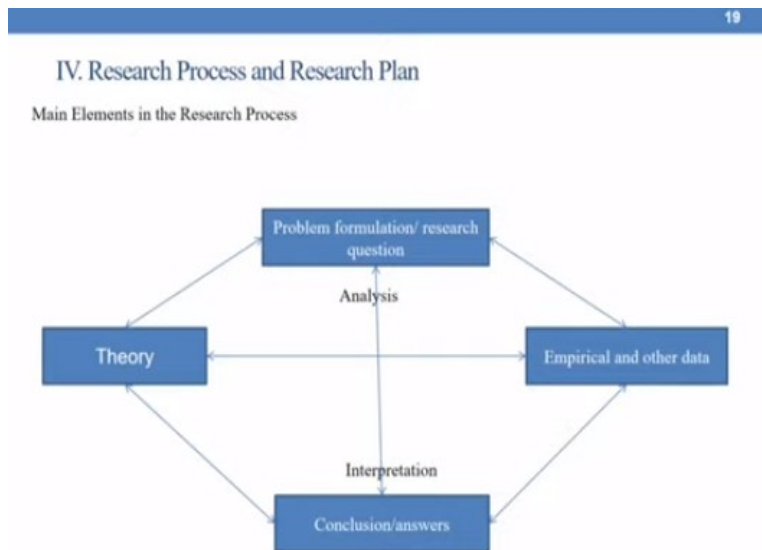
- Development concerns have given rise to a variety of demands for interdisciplinary perspectives.
- In the context of development project, team members from different disciplines work with their respective discipline orientation rather than working as an integrated team.
- Distinction between multi-disciplinarity and cross-disciplinarity. The former, which is required in planning and policy making, means working together in parallel. The latter means working through a confrontation between different disciplines leading to new ideas confronting methodological issues, which is necessary for good research.
- The cross-disciplinary perspective and skill in development work needs to come from altered curricula within the disciplines.
- Need for a sensitized approach and perspectives towards other's work and other disciplines.

Now, there are certain interdisciplinary perspectives that needs to be kept in mind when we are planning development research, because there are interdisciplinary perspectives and there are cross disciplinary and multidisciplinary perspectives and it needs to be distinguished. Some of these things need to be distinguished. For example, scholars have challenged the notion of some disciplines being associated with different degrees of rigor, such as economics is associated with quantitative approaches, whereas other social sciences are identified more as making use of qualitative studies. So, there is an argument. They argue that more serious distinction which applies to both quantitative and qualitative studies is related to data analysis and data mining.

Development concerns have given rise to a variety of demands for interdisciplinary perspectives. The purpose of addressing development problems in their complexity and addressing different layers of causal relationship has determined the need for holistic or interdisciplinary perspectives. So, what is the distinction between multidisciplinary and cross disciplinarity? Multidisciplinary is required in planning and policymaking and it means for different disciplines to be working together parallelly. Whereas cross disciplinarity means working through a confrontation between different disciplines, which leads to new ideas, confronting methodological issues which is probably necessary for good research. Cross disciplinary perspectives and skills in development work needs to come from altered curriculum within the disciplines and there is a need for sensitized approach and perspectives towards others' work and others' disciplines.




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Now, let us come to the fourth and the final part of today's lecture, where the focus is on the research process and research plans, what are the different stages in the research that we are undertaking. What are the main elements in the research process? Again, I will come back to the point that research process is basically a contribution to knowledge production.

The arrows illustrated here indicate the links between the elements are various analysis, interpretations and synthesis, and the research process, purpose and foci differ but in general, the figure captures the basic elements in the research process. We begin with problem formulation and research questions, then go towards collection of empirical data, then we come up with certain answers with regard to the data that has been collected through the methods of interpretation and analysis. And ultimately, all of these answers or conclusion contribute to theory, which will again feed into the problem formulation.

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- The arrows in the illustrated research process indicate that the links between the elements are various analysis, interpretations and synthesis.
  - Research problem formulation: It basically consist of
    - a. defining a problem
    - b. statement of the problem
    - c. operationalisation of variables
    - d. evaluation of the problem
  - Theoretical framework refers to the underlying theoretical approach that you adopt to underpin your study.
  - Data collection: what data to collect and how to collect it.
  - Conclusions/answers: analyze and evaluate the information.
  - Development Studies pose a special challenge as they often include professionals from different disciplines.

So, what happens at the problem formulation stage? Problem formulation stage itself contains a number of characteristics. One is defining a problem, statement of the problem, operationalization of variables, and evaluation of the problem. Now, formulation of research problem constitutes the first stage in the research process. Essentially, there are two issues involved in formulation of research problem. One is understanding the problem thoroughly and rephrasing the same into meaningful terms from an analytical point of view. In an academic institution, the researcher can seek the help from a teacher who is usually an experienced person, often the teacher puts forth the problem in general terms and it is up to the researcher to condense it further, narrow it down and phrase the problem in operational terms.

The researcher must be able to examine all available literature to get the concept, to get himself or herself acquainted with the selected problem. So, the researcher may review the conceptual literature concerning the concepts and theories, and the empirical literature consisting of studies made earlier which are similar to the one proposed. And, the basic outcome of this review will be the knowledge as to what research questions have been explored and what were the findings, what we generally refer to as a data gap or what is the findings, what is the gap in different kinds of studies that have emerged. So, after this, the researcher will then be able to rephrase the problem into analytical or operational terms that is to state the problem in as specific a manner as possible. So, this task of defining a research problem is a step of greatest importance in the entire research process.

And once the research problem has been formulated, next sub step within this is to define the problem further. So, the research problem needs to be defined. the definition of a problem amounts to specifying it in detail and narrowing it down to some workable size. Each question and subordinate question to be answered is specified at this stage and the scope and limits of investigation are determined. So, your research topic should be defined in such a way that it is clearly understood. And if you are studying, for example, the issue of undernutrition, undernutrition needs to be understood in a specific context. What are the outcome indicators of undernutrition? Who are the target groups? What is the problem within nutrition that you are trying to study? Are you looking at the dietary practices that contribute to undernutrition or are you looking at the social practices that contribute to undernutrition? Are you looking at the knowledge systems that contribute to undernutrition? So, what is it that needs to be studied must be defined properly at this stage.

The next is statement of the problem. A good statement of a problem must clarify exactly what is to be determined or solved or what is the research question. Often, we begin with objectives and move to the research question. The statement of the problem gives us very crisp research questions. So, it enables us to determine the data which had to be collected, the characteristics of the data which are relevant, relationship between variables which are to be examined, choice of methods and techniques to be used in these investigations.

The next step is operationalization of variables. Let me illustrate operationalization of variables through an example. Suppose we want to study the effectiveness of self-help groups on the empowerment of rural women. Now, this statement is a very broad one and it communicates in a general way, but it is necessary to specify the problem with much greater precision. For this the first step is to specify the variables involved in the problem and define them in operational terms. For example, what do the terms effectiveness and empowerment mean? How are we going to measure the term effectiveness? What are the indicators which would enable us to determine effectiveness? Similarly, what are the indicators that go to determine what is empowerment and so on. Similarly, in this study, we might also choose to define effectiveness as the improvement made by the rural women in scores on a standardized scale.

So, it is worth noting that the problem should be stated in a way that indicates a relationship between two or more variables. It should involve neither philosophical issues- we cannot be explaining the concept of empowerment philosophically, values, not questions of judgment that can be answered by scientific investigation. For example, should Television be more effective in increasing performance levels of students? Such value questions cannot be answered through research. Similarly, the question what is there in Television teaching that enhance performances is a philosophical question which cannot be probed easily through research.

The last step in research problem formulation is evaluation of the problem itself. As a researcher, one should evaluate a proposed problem in the light of one's competence and professional experience, possible difficulties in the availability of data, financial and field constraints, and limitations of times. And all of questions must be answered affirmatively before the study is undertaken.

And it always makes sense to understand what are the questions that we should ask. One of the first things to begin with is to understand what are the questions that we should ask as a researcher and we are moving towards undertaking a study. One of the important things to keep in mind with regard to the research process is a theoretical framework, which needs to be taken up for the study. It basically refers to the underlying theoretical approach that we want to adopt to underpin our study. When and how does this happen? When we read the literature, we continually develop and refine our theoretical and conceptual framework. Therefore, it is a vital part of research process and it is important to alter us to potential problems before they occur.

The next step is data collection. What data do we collect? How do we collect it? Then we look at analysis of data to come up with possible conclusions and answers. And one thing to keep in mind is that Development Studies pose a special challenge as they often include professionals from different disciplines and therefore, when we are combining these different methods, this combination of methods do not happen very randomly. There is a scientific methodology which needs to be followed when we are combining the different methods.

One last thing to keep in mind when we are understanding the research process is that there are certain methodological and logic considerations in the research process.

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### Methodological and Logic Considerations in the Research Process

- Our choices while carrying out a project or study reflect our values and 'codes of conduct' not only as professionals but also as persons.
- Research methodologies, designs, research methods cannot be combined in all ways. There should be an internal logic in any study.
- Internal Logic: mix of appropriate research methods, designs and tools to ensure higher quality of research studies, good research practices and also with regard to the relevance and use of the research results.
- Changes in Research Focus and Purpose: Changing micro level conditions for a development project- e.g., intra and inter-household power relations and macro-level conditions of sector policies, decentralisation, etc.
- Important to reflect on and change the research purpose throughout the whole process.

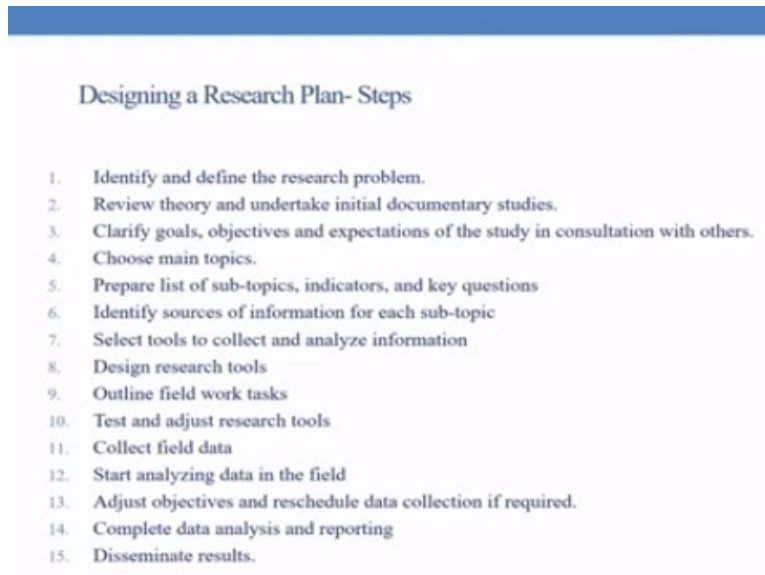
A variety of considerations enter into the process of doing social research in development studies. And our choices while carrying out a project or a study reflect our values and codes of conduct, not only as professionals but also as persons. Some of the things that we need to keep in mind, the questions that we need to keep asking over and over again where taking up a Development Studies research question is, how we work inductively? How do we work inductively, deductively or both? How do we think scientifically, epistemologically and ontologically? What are the kinds of data we are using- qualitative, quantitative or both or mixed? What are our values? What do we think about the people that we are researching? And how do we deal with ethical and practical problems and the context as a whole?

And the claim for methodological pluralism as I said that, it does not mean that research methodology's designs, research methods etc. can be combined in all ways. There should be some internal logic in a study and internal project logic is what research strives for. It is a mix of appropriate research methods, designs and tools to ensure higher quality of research studies, good research practices and also with regard to relevance and use of the research results. And focus should also be on the changes in research focus and purpose as we keep moving in our research. So, the changing micro level conditions for a development project, for example intra and inter household power relations, and macro level conditions of sectoral policies,

decentralization etc. It is important to reflect on change and change the research purpose throughout the whole process.

Often, we begin with one research problem and end with another research problem because of the constant changes that are happening during the process of undertaking research.

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Designing a Research Plan- Steps

1. Identify and define the research problem.
2. Review theory and undertake initial documentary studies.
3. Clarify goals, objectives and expectations of the study in consultation with others.
4. Choose main topics.
5. Prepare list of sub-topics, indicators, and key questions
6. Identify sources of information for each sub-topic
7. Select tools to collect and analyze information
8. Design research tools
9. Outline field work tasks
10. Test and adjust research tools
11. Collect field data
12. Start analyzing data in the field
13. Adjust objectives and reschedule data collection if required.
14. Complete data analysis and reporting
15. Disseminate results.

Now, there is no simple intermediate and universal answer to the questions of which research design is best, which methods of investigation and data collection will provide the most useful information and for whom. But it makes sense to have a to-do list with regard to designing a research plan and therefore, there are certain steps that needs to be kept in mind when designing a research plan.

So, beginning with identifying and defining the research problem, review theory and undertake initial documentary studies, clarify goals, choose main topics, prepare list of sub topics, identify sources of information, select tools to collect and analyze information, design research tools, outline field work tasks, test and adjust research tools. So, all the numbers from 1 to 10 determines how robust your research plan is.

After testing and adjusting the research tools, we move to the field. Collect field data and start analyzing data in the field. But unless numbers 1 to 10 are robust, or are studied in depth, in

detail before the data collection process starts, the researcher is bound to enter into difficult territory while analyzing data. So, the final steps are collection of field data, analyzing data, adjusting objectives and rescheduling data collection if required, analysis, reporting, and dissemination of results.

So, in this lecture, we looked at what are the different types and forms of Development Studies research. We also looked at the various epistemologies that needs to be kept in mind when we are dealing with different kinds of research. We also got introduced to the purpose and focus of development research, we looked at the various research design and plan that needs to be kept in mind when we are taking up the development research question.

And one final word with regard to different types of development research or research processes is that to keep in mind the qualitative-quantitative continuum, because within the vast array of social sciences that form the development studies, there are certain disciplines which are more identified with quantitative techniques and there are certain disciplines which are identified more with qualitative approaches. But international development research has clearly moved towards more and more of mixed methods strategies, and therefore it is looking for possible combinations of different kinds of research methods that need to be kept in mind.

So, I will end today's lecture with this. I will see you in the next class. Thank you.