

RESEARCH GUIDE

For MCMC & SMC



National Institute of Management, Islamabad

National School of Public Policy

RESEARCH GUIDE

For MCMC & SMC

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PREFACE

At the National Institute of Management (NIM), National School of Public Policy (NSPP), the aim of research skill development of civil officers is to promote deeper understanding and greater utility of research-based evidences in public sector management and public policy process. Learning by doing research at NIM will:

- Enable the participants to plan, design and conduct policy research, evaluate the quality and utility of results, and, raise valid questions about the research process and policy implications.
- Improve the knowledge and intellectual abilities of the participants by critically evaluating the observations and complex reasoning.
- Advance participants' analytical and critical thinking needed to analyse, evaluate and compare research/policy arguments, and manage problem-solving situations by consolidating *what works, why, and why not*.
- Enhance personal and professional effectiveness in managing public policy-decisions.

Keeping in view the above-mentioned research training objectives, the purpose of this 'Research Guide' is to provide the participants of the Course (MCMC & SMC) a detailed orientation, instructions and guidelines on research methodology for planning, designing, conducting and writing research.

This 'Research Guide' is divided into three parts: (Part I) *Research Orientation* highlights the importance of research in policy and practice, and briefly explains the stages involved in a research process; (Part II) *Research Methodology* presents what are research methods, compares quantitative and qualitative research, and describes case study research and action research; and (Part III) *Planning and Conducting Research* provides detailed instructions about planning research, research design, data collection, data analysis and writing research.

A number of individual and group research activities are planned for each MCMC & SMC training. These include Individual Research Paper (IRP), Current Issue Presentation (CrIP), Case Study Research (CSR), Simulation Exercise (SE) and Tutorial Discussions (TD). Keeping in view the technical assistance required for the participants to conduct these research assignments, *annexes* are included at the end of this Research Guide to provide detailed guidelines for IRP, CrIP, CSR and SE. Annexes on citation & referencing style, policy on plagiarism, and essentials of a good quality research have also been included for participants' guidance.

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PART I: RESEARCH ORIENTATION

Research is a systematic collection, analysis and presentation of information in order to establish facts and generate knowledge by reaching a new understanding. It entails a careful and detailed investigation into a specific problem, concern, or issue using an appropriate research strategy.

1.1. RESEARCH IN POLICY AND PRACTICE

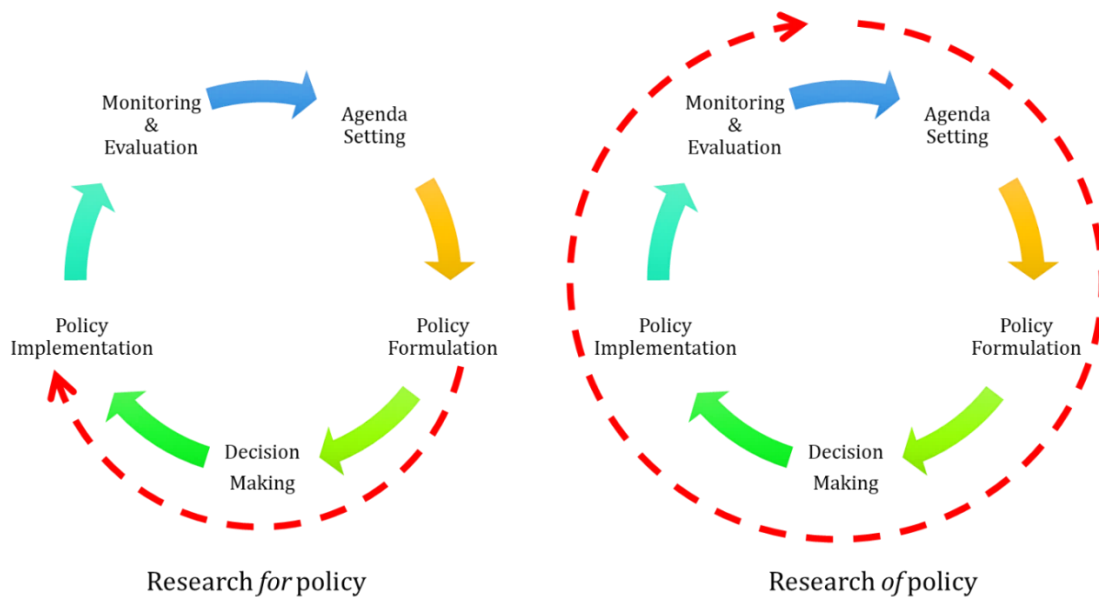
Research is a key component of *knowledge resource* which is often used to inform, and sometimes to influence, policy decisions. The purpose of research is often to inform the public policy process. From agenda-setting, to policy-formulation, decision-making, policy implementation and evaluation, research studies inform the broader audience – including the policy-makers and practitioners – about *what went wrong, why, and how to improve it*. It is a known fact that knowledge generated through evidence-based research could benefit the government and other stakeholders to devise/review policy initiatives and practices and make right decisions when designing/revisiting policy interventions. Gaining this knowledge often requires research to define and understand the key issues as well as to develop constructive ideas to advance a policy implementation plan. However, for research to have an impact, the results must inform policies, shape programmes, and be translated into practice.

Policy research is a type of research that aims to provide answers and evidences that can contribute in the improvement of policy and policy-making process. Policy-oriented research is not only limited to find solutions to policy problems, but also concerned to improve better practices and interventions by informing organisations, policy-makers and decision-makers with pragmatic, action-oriented useful recommendations.¹ As presented in *figure 1*, there are two types of policy research:

- **Research for policy** is concerned to inform actors involved in managing various stages of the policy process (from policy formation to the policy implementation stage). This attempts to explain policy-making process and their execution.
- **Research of policy** is concerned with how the problem was defined, agenda was set, policy formulated, decisions made, and how the policy/intervention was implemented, evaluated and changed. This attempts to review the whole policy process and suggest revisions, if required.

¹ See Becker, Bryman & Ferguson (2012)

Figure 1: 'Research for policy' and 'research of policy'



Source: author's own illustration

A vast literature suggests that policy-makers, practitioners and researchers live on different planets. This notion of disconnect between different sets of actors involved in managing different stages of a policy process is referred to *research-policy gap*. This gap is prevalent due to several barriers on research and policy sides. On the *research side*: the research topics are not always relevant to the policy needs, conclusions are not definitive, and/or policy implications often lack the perspective and feasibility aspect. Lack of adequate research and development funding, lack of expertise, poor quality data, and poor dissemination of research also undermine the value and effectiveness of research. By contrast, on the *policy side*: policy-makers and practitioners (civil administration) have short time horizons due to which they often look for quick fixes. They are too busy to read lengthy research papers or reports, hence rely on practical solutions. Instead of the technical soundness of the research, policy-makers and practitioners are often more concerned about the development priorities, completion time, expenditure, visibility and reputation, political risks and possible backlash from the opposition.

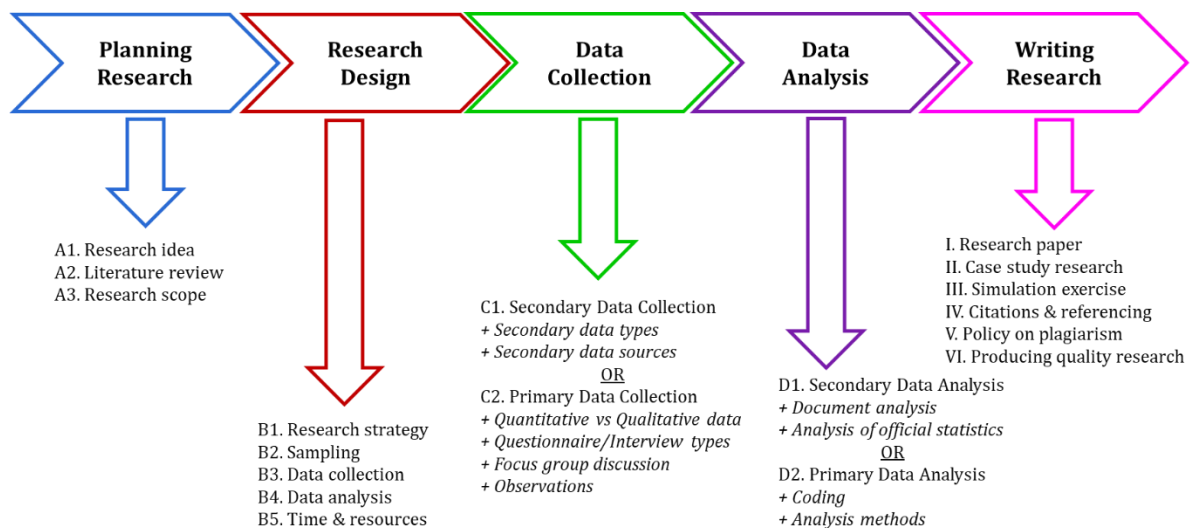
In a changing world – such as demographic, social, economic, political, and climate change – this disconnect can be disastrous for effective management of public policy and sustainable development. To *bridge* the research-policy gap, primarily, there is a need for researchers and policy-makers/practitioners to interact more frequently and understand the policy process and policy needs. Further, in order to mitigate the impact of ever changing political and policy environment, the practitioners (civil officers) must learn and understand the research process and its utility in managing policy decisions.

1.2. THE RESEARCH PROCESS

Before starting a research study (or project), it is important to understand main steps involved in a research process. *Figure 2* outlines the five stages of a typical research process: (1) planning research, (2) research design, (3) data collection, (4) data analysis, and (5) writing research.²

This process is usually followed in all forms of research and evaluation projects, regardless of the method used such as quantitative, qualitative, mixed method, evaluation research and/or case study research. Researchers must follow this process and document the study in such a way that a reader can understand the investigation clearly (i.e., research objectives, methodology, data, findings, and conclusion) and/or another researcher can conduct/replicate the same study again.³

Figure 2: Steps in a research process



Source: author's own illustration

⇒ A step-wise discussion about the research process is presented in Part III: Planning and Conducting Research.

² Depending on the research topic and familiarity with the policy area and existing literature, researchers may want to rearrange these steps, but need to go through all these steps to complete the research assignment.

³ *Annex VII* highlights some key considerations for producing a good quality research.

PART II: RESEARCH METHODOLOGY

As a researcher, the participants will consider what research method(s) might be most appropriate for achieving the overall research objective by answering the questions under investigation. Selection of research method(s) depends on the question(s) that a researcher wishes to answer, and the scope that may include a range of additional considerations such as problem under examination, understanding of the policy sector and policy processes, time and space, source of knowledge, methods of data collection and analysis, and sampling and ethical considerations. This section (part II) sets out some possible research methods/approaches to study policy issues and/or explore complex public policy problems.

2.1. QUANTITATIVE AND QUALITATIVE RESEARCH

There are a variety of considerations in the process of doing policy research. Among these, the distinction between *quantitative research* and *qualitative research* must be understood to devise an appropriate research methodology. The quantitative and qualitative research distinction represents a useful means of classifying different methods of investigation. *Table 1* presents a contrast between these approaches.

Table 1: Contrasts between quantitative and qualitative research

QUANTITATIVE	QUALITATIVE
Numbers	Words/Language/Expression
Interest/point of view of researcher	Interest/point of view of participants
Researcher distant	Researcher close
Theory testing (<i>Deductive</i>)	Theory emergent (<i>Inductive</i>)
Test pre-set hypothesis	Explore complex societal/policy issues
Static	Process
Structured	Unstructured
Generalisation	Contextual understanding
Hard, reliable data	Rich, deep data
Macro	Micro
Behaviour (or trends)	Meaning (of actions)
Artificial settings	Natural environment
Answer more mechanistic 'what?' questions	Answer 'why?' and 'how?' questions

Source: Modified and amended from Bryman (2012)

Quantitative research aims to test pre-determined hypotheses and produce generalisable results which are often useful to answer more mechanistic ‘*what*’ questions. A quantitative research method emphasises objective measurements and quantification in the collection and analysis of data based on hard and reliable statistics. This research methodology usually uses numerical data to study incidence and trends at macro-level and employs statistical models to examine causal and correlative relationships between variables.⁴ This requires structured information from large numbers of people, usually through random or probability sampling, followed by collection of primary data through surveys. Other sources of data may include collection and analysis of secondary data; often published and/or official statistics.

Qualitative research aims to provide in-depth understanding of human behaviour/ actions and complex societal/policy issues that are often useful to answer ‘*why*’ and ‘*how*’ questions. This research method usually collects and interprets rich description and deep data (words) rather than quantification in the information collection process and analysis. This requires semi-structured or unstructured information from small numbers of people, usually through non-random (or non-probability) sampling, followed by collection of primary data through fieldwork. Qualitative research methodology has a strong basis in the field of policy studies, social and political sciences. Common methods used for qualitative research include *interviews* and *focus group discussion*. This method allows researchers to explore a situation/phenomenon in-depth (with a smaller group) in a specific context, hence provide rich contextual description and analysis.⁵ Researchers can also record and analyse qualitative data from observations (or ethnography⁶) and interactions, in such a way that the researcher becomes a part of the situation rather than an outside observer.

Although quantitative and qualitative research methods have contrasting approaches and application, it is important to understand that these are not contesting methodologies! Instead, both complement each other: a quantitative method is useful to investigate the incidence of a problem or status of a policy initiative at macro-level,⁷ whereas a qualitative method is considered suitable to study human behaviour, context-specific cases, and explore complexities in policy processes at micro-level.⁸ A

⁴ Many statistical packages/programmes are available to handle and process large numerical (primary) data sets such as PASW (SPSS), EViews and Stata.

⁵ Unstructured data (text) is often handled and analysed manually, however for bigger data set, NVivo programme can be used to manage the record.

⁶ Ethnography is the recording and analysis of a culture or society, usually based on participant-observation and resulting in a written account of people, place and/or institution (Simpson & Coleman, 2017).

⁷ Such as incidence of poverty in Pakistan; status of education enrolment in Punjab; impact of BISP, etc.

⁸ Such as political economy of PSDP; implementing education sector reform; electoral reform process; managing international relations; criminal investigation and judicial process; eliminating terrorism, etc.

combination of both research strategies may help to comprehend a deeper understanding of the issue or policy problem.

Sometimes researchers combine quantitative and qualitative research methods within a single research strategy, called ***mixed methods*** approach. For instance, combination of structured interviewing with structured observation or focus group discussions, or semi-structured interviewing with closed-ended questions,⁹ ratings and rankings of quality and performance.¹⁰ Although, mixed methods approach is getting popular these days, researchers should be mindful that the quantitative & qualitative data and findings deriving from mixed methods research should be mutually illuminating.

2.2. CASE STUDY RESEARCH

A case study entails a detailed, intensive, and context-specific analysis of a single case. The prime objective of a case study is to develop as full understanding of a researched case as possible by providing multiple perspectives rooted in a specific context.¹¹ In this approach, the basic idea is to study *one case* in detail such as a person, policy, project or intervention, process or institution, organisation, community, location or an event (*as subject of case analysis*), using single or multiple research method(s). This research approach is often recommended where no single method can provide an in-depth account or explanation of the policy problem, and where understanding of the issue needs to be holistic, comprehensive and contextualised.

The case study approach is often associated with qualitative research, but it is more of a mixed methods approach. This may involve collection and processing of qualitative and quantitative data, the use of multiple (data collection and analysis) methods – such as document analysis, semi-structured or unstructured interviews, participants observations, focus group discussion, and/or analysis of official statistics.¹²

In most cases, the case study research design¹³ is structured around the *context(s)* rather than sample cases (individual research participants). In such circumstances, the *subject of a case analysis* might be, for example, a *person* (e.g., Imran Khan being a cricketer or a politician), a *policy* (e.g., trade policy, madrassa reform, or Vision 2025), a *project*,

⁹ *Closed-ended questions* require a simple response such as ‘yes’ or ‘no’, while *open-ended questions* need more thought which require more than a simple one-word response. More detail in Section 3.3 (C.2.).

¹⁰ Description of these data collection tools is discussed in Section 3.3.

¹¹ See Bryman (2014); Flick (2009); Ritchie & Lewis (2003); and Silverman & Marvasti (2008)

¹² A case study is a recommended research methodology to conduct ‘*research for policy*’, ‘*research of policy*’, and/or detailed analysis of a situation/phenomenon at a specific stage of a policy process to understand the complexities or outcome. The case study method is widely popular in business and management sciences, anthropology, sociology, psychology, public policy and public administration.

¹³ See Section 3.2: Research Design

programme or *intervention* (e.g., BISP *Waseela-e-Sehat* initiative), a *process* (e.g., a legal proceeding or electoral reform process), an *institution* (such as role of FPSC in civil service reform), or an *organisational* context (such as a university or a hospital, involving their management, beneficiaries and stakeholders). Less complex case study designs might involve only two individuals in a case, such as a professional lawyer and his client.

According to its research design, case studies can be divided into three categories: explanatory, descriptive and exploratory. The *explanatory case studies* primarily focus on exploring 'how' or 'why' questions. The *descriptive case studies* mainly analyse the sequence of interpersonal (cultural) events after a certain period of time to discover the key phenomena. And the *exploratory case studies* usually help to answer the 'what' or 'who' questions.

Although not always common, *multiple cases* can be examined under a case study research design to study a particular phenomenon, referred as **comparative-case studies**. The research methodology for single and comparative-case studies are similar, but the latter approach requires more extensive conceptual, analytical and synthesising examination of cases, due to which the scope of the study expands exponentially – over time, within and across contexts. Nevertheless, the comparative design enables to better understand the phenomena/situation when meaningfully contrasting cases are compared. This research method is often used to conduct cross-cultural research; study of nations, casts, ethnicity etc. However, this method can also be applied to identical studies, known as **multiple-case studies**. For example, Ayub and Hussain (2016)¹⁴ researched organisational performances in nine case studies of Pakistani institutions from the public and private sectors. In both, comparative and multiple-case studies, consistency and comparability (of data, instruments, variables, and characteristics of sample) are the most important considerations in the research design.

The rationale for selecting this method would require clear operational definitions of the concepts, key evaluation questions, and selection of comparable cases and indicators for comparative analysis. An in-depth understanding of each case is critical to establish the foundation for the analytic framework that would then be used in the cross-case comparison. This approach helps to understand the casual questions such as how and why particular policy or intervention worked or failed to deliver. For instance, motivational level of a group of people (such as officers or staff) or performance of different departments within a university can be examined as comparative case studies. In this case, unlike single case study approach, the sample (e.g., group of people or departments) would be the subject of case analysis.

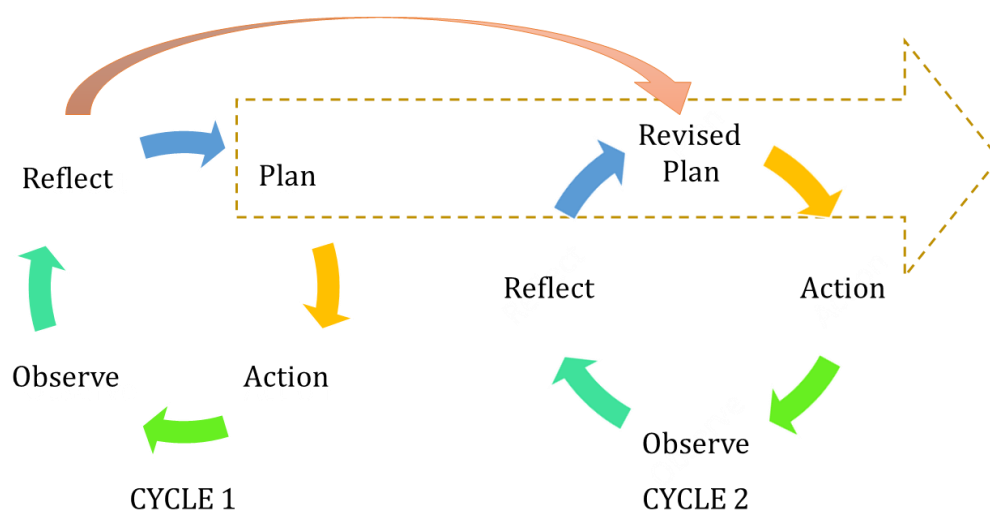
¹⁴ Candles in the Dark: Successful Organizations in Pakistan's Weak Institutional Environment (OUP, 2016)

2.3. ACTION RESEARCH

The purpose of an action research approach is to *diagnose* an immediate problematic policy or societal situation, and to *suggest* solutions or guidelines for best practice. The process of an action research is somewhat different from the usual research. It is an interactive and collaborative inquiry process. Instead of a single method approach for collecting and analysing data, action research has a holistic strategy to diagnose and solve problems.¹⁵

There is a *dual commitment* at the end of the researcher: to study the system and processes, and concurrently, active collaboration with the members of a social setting/system in the diagnosis of a problem; both must lead to a desirable direction/solution. Although the research objectives are often clear at the beginning, the methodology to investigate the problem situation needs to be reviewed and refined during the course of research.

Figure 3: The action research process by Stephen Kemmis



Stephen Kemmis (1982) has developed a simple *cyclical model* of action research (see figure 3). Each cycle has four steps: plan, action, observe and reflect. The second cycle starts with a revised plan (or solution based on a renewed diagnosis) and ends with a reassessment of the action taken. This process continues until the problem is resolved.¹⁶

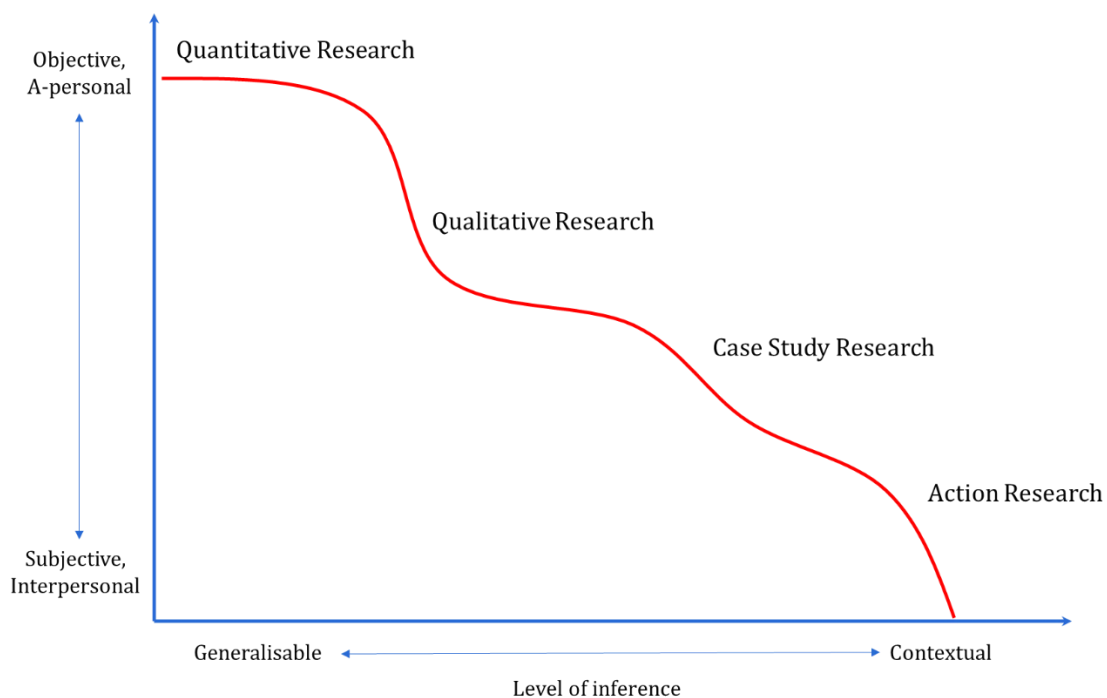
¹⁵ Simulation Exercises for the participants of MCMC & SMC are designed on this approach.

¹⁶ For more recent debate on the subject, see: Kemmis *et al* (2014) *The Action Research Planner: Doing Critical Participatory Action Research*.

Action research may involve collection of both quantitative and qualitative data. This research methodology is used in natural environment, rather than in artificial settings, since its primary focus is to solve real policy/societal problems. Application of action research is common in the fields of administrative and management sciences, and social policy. The application and relevance of this method is still contested. On the one hand, this approach is sometimes dismissed by academics due to the lack of rigour and potentially biased approach. On the other hand, it is advocated on the basis of engaging people (clients or beneficiaries) in the diagnosis and findings indigenous solutions to problems instead of imposing ready-made solutions to predefined problems.

Finally, *figure 4* presents the slippery slope of research methods discussed above. Looking at the slope, while keeping in view the indicators on *x-axis* and *y-axis*, the illustration presents the level of objectivity/subjectivity, role of a researcher in the study (a-personal to interpersonal), and act of drawing inferences from generalisable reasoning (in quantitative research) to rich contextual understanding (in qualitative, case study and action research).

Figure 4: The slippery slope of research methods



Source: author's own illustration

PART III: PLANNING AND CONDUCTING RESEARCH

3.1. PLANNING RESEARCH

Planning a research study/project is the first step of the research process (*see figure 2*). Every research assignment has specific requirements and instructions concerning different features such as: scope, structure/contents, format, citation and referencing style, word limit, plagiarism, deadlines etc. You are required to comply with all specific instructions provided for each activity. This section provides instructions about *planning your research* that includes: identifying area of interest, reviewing the literature, and developing research scope.

⇒ *NOTE: The importance of this stage is often underestimated, but negligence might cost you time and/or revisions at the later stage of the research process. Detailed guidelines for individual research paper and citation & referencing style are presented in Annexes I & V, respectively.*

A.1. Research Idea

To develop your research idea, for instance ‘*what do I want to research?*’, you first need to explore whether there are any topics or researchable questions that might interest you. Think about a policy sector, published research work, a case from your professional life or a recent event/phenomenon which came under discussions with friends or colleagues.

⇒ *NOTE: in the beginning, do not worry if you end up considering more than one area of interest to be researched. Try to shortlist your areas of interest (keep it to minimum) and start working on them simultaneously. Your task here is to pick one research area, ASAP!*

Select a research area keeping in view your professional and personal interest.¹⁷ To finalise your *research topic*, discuss your ideas with your Faculty Advisor, colleagues and/or experts in the field. An interesting research topic and refined *research scope* (see Section A.3) guarantee much easier process of data collection, analysis and research writing. Once the topic of interest is identified, the next step is to *review the literature* (see Section A.2), work on the *problematization* of the issue and formulate the *research scope* (see Section A.3).

Do consider *managing time and resources!* There is no point in working on a research topic which you cannot complete in given time and available resources. It is therefore

¹⁷ Interest in a research area is often recommended so that both intrinsic and extrinsic motivations keep you on the right track. An area or topic which is popular but may not match your interest or expertise might lead you to an unpleasant research journey.

recommended to work on managing your *time* and assess what *resources* are available to you (see Section B.5).

⇒ *REMEMBER: You can always amend your research scope and make necessary changes in research design before proposal submission. So, do not invest too much time and energies in finding a perfect research idea at the very beginning of your research. This will evolve and be refined as you go through the steps in a research process.*

A.2. Review of the Literature

Review of the literature is an important step in the research process. In this step you would search and select, get access, read through and explore high quality recent published material relevant to your research interest/topic. The principal objectives of the survey of literature are as follows:

- You must know what is already known about the topic.
- What is the status of the debate on the topic.
- What theories, methods and strategies have been applied to study the topic.
- What evidences have been presented and whether there are inconsistencies and controversies relating to the topic.
- Who are the leading authors and their contributions in the area.
- What concepts, theories and/or public policy decisions are relevant to the topic.

An initial survey of literature would enable you to formulate the research scope, articulate research argument and refine research questions.¹⁸ A systematic and well-planned review of the literature will help you to:

- get yourself familiar with the topic;
- understand the key contribution in the exploration and understanding of the phenomena;
- raise critical questions, challenging existing assertions and observations; and
- identify unanswered questions where research is needed.

The culminating point of the initial survey of literature is the identification of the gap in the existing literature where you could claim your contribution by conducting research. Once the objectives of research are well defined and the key research questions are formulated, the main survey of literature would begin in the light of the scope, objectives

¹⁸ Or set *hypotheses* in case you intend to conduct a quantitative research.

and research questions, leading to the key hypothesis for which the evidence would be marshalled by further research.

⇒ *NOTE: Literature review is not just a summary of the published material that you have consulted for your research. The review of literature must be relevant, thematically evaluated and organised, and expected to be constructively critical.*

It is expected that, at the early stages of your research, a great deal of time will be consumed in exploring the existing literature and debate on the topic. It is important to get most out of it, since you would not need this only for writing a section on literature review but must revisit the relevant literature while writing your findings and policy recommendations at the later stage; relating your findings and observations with others. To execute this exercise in a better way, try to do the following:

- **Search and identify** the relevant information using academic database, online scholarly sites, knowledge networks, relevant government and think tanks websites, official statistics and library.¹⁹
- **Shortlist** the relevant literature. Not every research paper, report or dataset is relevant. While searching and reading material, evaluate the material according to quality, content and relevance to your topic.
- **Read actively and critically** and **take notes** about: the research objectives; the leading research questions posed; the context of the research; type and source of data; the research strategy adopted; and the key contribution/message(s) drawn.²⁰
- During this exercise, keep working on formulating your **research scope/design**: develop your research argument, list/refine your research questions, and think about the research strategy.
- Start managing your **bibliography**. You can do it either manually using a *Harvard Style* of referencing and citation or use MS Word 'References Tab' to manage your referencing and citation automatically.²¹
- Avoid **plagiarism** at all costs! It is strongly recommended that you **cite and reference** the material properly as per the given instructions in your research assignment.²²

¹⁹ There are a variety of resources available such as Google Scholar, ResearchGate, e-Journals, Government documents (policies, plans, reports, official statistics), websites of academic institutes/think tanks (research papers, lectures, presentations and policy briefs), newspapers, books, magazines etc.

²⁰ Some researchers develop *summary table* to manage the literature they explore.

²¹ Detailed instructions on *Citation and Referencing* are provided in *Annex V*.

²² Brief guidelines on *Plagiarism* are presented in *Annexes VI*.

It has been observed that some researchers want to *avoid* the literature review at the beginning by stating that there is ‘no’ or ‘limited’ material available on the subject. This is a naïve approach! Participants need to develop skill in searching and exploring the relevant material for their research assignment.²³

⇒ *NOTE: The role of the supervisor (Faculty Advisor) is critical. The supervisor will make it sure that the participants should invest sufficient time and energies in exploring the existing literature, following the debate, and developing the research scope in light of this exercise.*

A.3. Research Scope

The research scope delimits the research efforts to meet the overall objective of a research study and underscores the significance of your research. It must be developed at a preliminary stage of the research process and articulated in such a way that it provides detailed descriptions about the ***direction and dimension*** of the research. Failing to do so means ambiguity about the research objectives, and eventually would not lead to the desired expectations set by the participant and faculty. In order to develop a comprehensive research scope, you need to:

- Set *objective* of your research
- Work on *problematization* of the issue (Statement of Problem)
- Identify the problem through *situation analysis*
- Formulate *research questions* to examine the problem
- Establish *link* with theory and/or public policy debate
- Define the *boundaries* of your research
- Highlight the *limitations* of the study

The scope, which will be presented in the Introduction section of both the research proposal and final IRP, must include ***objective(s)*** of your research with clear thoughts and arguments based on the existing literature search and debate in a public policy context. A research objective is a one-sentence statement indicating the direction and dimension of your research idea, for example:

- ✓ To examine the utility of Metro Bus System in female mobility in Islamabad-Rawalpindi.

²³ A number of resources are available for literature search. These include Google Scholar; ResearchGate; RePEc; World Bank Open Data; UN Data; Pakistan Bureau of Statistics; PIDE; SDPI; Government policy documents, annual reports, status reports, books, newspapers etc., to name a few.

- ✓ To explore the impact of TVET in realising social empowerment of young women in Pakistan.
- ✓ To examine the influence of aid proliferation on managing foreign economic assistance in Pakistan.

⇒ *NOTE: The Chief Instructor and/or Faculty Advisor will guide you and suggest necessary changes in the research topic considering the originality aspect, requirements of your research assignment, a workable research area, and in the scope of research which should not be too broad or too narrow.*

The knowledge gained through the literature review will guide you to work on the *problematization* of the research issue. This may include collection of background information, critical analysis of the existing debate, review of published material and assessment of contextual factors. This will help you to write the **Statement of Problem**. A statement of problem (or research problem) is a short description of the issue that needs to be assessed and addressed. A well-thought and well-articulated statement will set the main argument and establish the foundation of your IRP. To identify the problematization of research issue (and write the statement of problem), you need to think and work on the following:

- What is to be investigated?
- Which aspect is worth exploring?
- Why it is important?
- Is the problem likely to continue?
- Challenge existing beliefs and observations!
- How large is the population affected by the problem?
- Would this study revise or extend existing knowledge?
- Is there evidence or authoritative opinion from others to support the need for this research?

While working on it, do not hesitate to raise questions, identify gaps, challenge the existing beliefs and observations, explore different dimensions and try new approaches. This will help you to clarify the problem and formulate research question(s).²⁴

Once the topic is assigned, you must start working on the **situation analysis**. Although a comprehensive situation analysis is an integral part of the case study research method, it

²⁴ For more details on 'Generating Research Questions through Problematization' see Annex VII: Essentials of a Good Quality Research.

is a good approach to develop your research scope, especially in case of policy research; whether you intend to conduct a quantitative and/or qualitative study. The knowledge gained through the literature review will guide you to identify the *research problem*. The analysis may include collection of background information such as official statistics and status/direction of debate, mapping the network of actors, resource mobilisation, and assessment of contextual factors. This will assist you to:

- Understand the nature and scale of the problem.
- Identify root causes and risk factors.
- Define terms and concepts.
- Explore knowledge, attitude and behaviour of actors.
- Examine resource exchange and constraint.

While working on the situation analysis, do not hesitate to raise questions, identify gaps, challenge the existing beliefs and observations, and try new approaches. This will help you to clarify the problem and formulate research question(s).

A **research question** is an explicit statement of purpose indicating what it is the researcher wants to explore.²⁵ Formulating clear, intelligible and unambiguous research questions is extremely important in the research process, because it defines the basis of the research. The whole research process revolves around the research question(s) because it will guide your literature review and research scope, influence your choice of research methodology, data collection and analysis approach, and guide the writing-up and presenting your research findings and policy recommendations. Typically, all steps of the research process are designed and completed in such a way to answer the research question. In other words, poorly formulated research questions would lead to a difficult research journey.

There are broadly four steps in **formulating research questions**: (a) identifying *concerns* in the research area, (b) consider *variations* in concerns, (c) *list* all questions you find thought-provoking while developing your research idea, reviewing the literature, and refining your research objective, and (d) *select* specific research questions; must relate to the research topic, research objective, and should have some connection with established research and/or public policy. Each research question must be a *single sentence* statement, not too broad and not too narrow, and end with a question mark! Following are some examples of research questions:

²⁵ In quantitative research, you need to develop *hypotheses* instead of research questions, depending on your research scope.

- ✓ How the female travellers perceive Metro Bus System in term of accessibility, safety, affordability, and reliability?
- ✓ Does TVET give young women the confidence to interact, argue and bargain in social interactions?
- ✓ How does aid proliferation affect the capacity of the Pakistan government to manage foreign aid?

⇒ *NOTE: In case of more than one research question, make sure that they should be linked to each other in such a way that they collectively address the research objective.*

⇒ *REMEMBER: Research questions are not always easy to formulate. If you find yourself stuck about how to formulate research questions, it is recommended that you must read more published material on the topic. Think about personal experiences, consult your advisor (sponsor DS) and colleagues, and look for a few interesting articles and assess if that research might be tested in a new setting.*

Once you are done with the research objectives and situation analysis, there are *three* important considerations remaining which you must not ignore to complete the research scope:

- **Establish link** between your research objectives and public policy: Clearly state *why* your research is worth reading/considering; and *what* contribution your research would make to the public policy.²⁶
- **Define boundaries** of your research! Describe in detail what your research will be about such as population, context, aspect of an issue, time and space, etc. This will allow you to execute your research on specific issue or aspect of a policy.
- **Share research limitations:** It is recommended that you should not hesitate to share the limitations of your research. It might include time and resource constraints, challenges related to access and dependence, non-availability of quality or complete secondary data, or some aspect of the research you missed to include in the research scope but found it interesting enough to be included at the later stage.

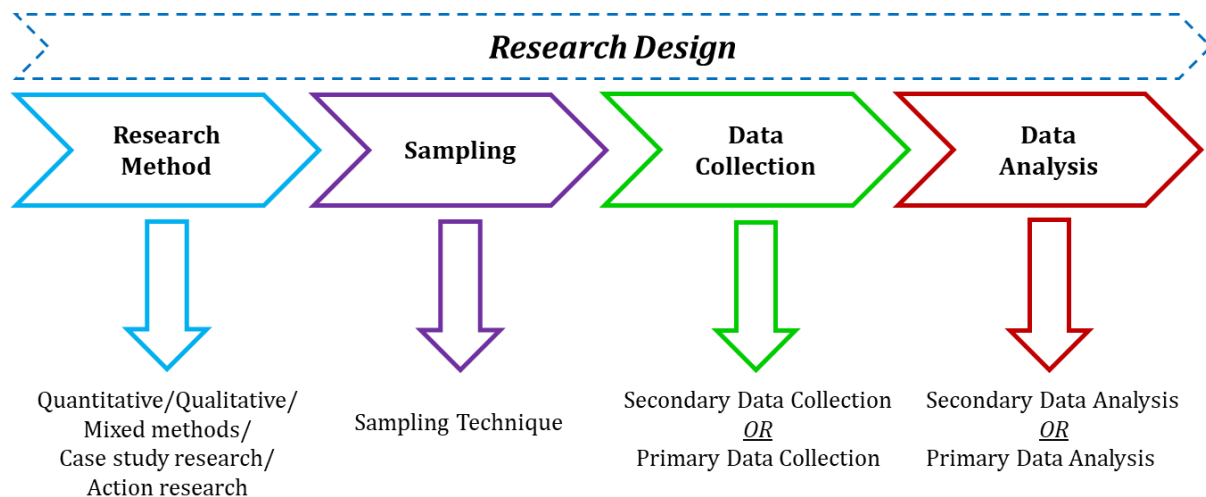
⇒ *NOTE: It is essential that your Faculty Advisor (Sponsor DS) approves your RESEARCH PROPOSAL before you move forward with your research! Detailed instructions on contents/structure of a research proposal are provided in Annex I: Guidelines for Individual Research Paper.*

²⁶ In academic research, *conceptual framework* is considered as a key feature of the research design. It comprised of concepts, assumptions, beliefs, theories and relevance to public policy that inform your research. Here you are only required to establish link of your research with public policy.

3.2. RESEARCH DESIGN

Research design is the second step of the research process (see figure 2). It refers to the research structure of an enquiry that integrates the method of data collection and analysis of data in a coherent and logical way. In simple words, it means *how to plan your research study*. Any study needs a well-developed research design comprised of well-thought *research method(s)*, *sampling* of cases, method of *data collection* (e.g., questionnaire, observation, document analysis), and *data analysis* approach (e.g., content analysis, thematic analysis, narrative analysis). This enables the participants to meet the research objectives, find answers to the research questions, and address the research problem in a systematic manner.²⁷ An early decision about preferred research method(s), data collection approach(es) and analysis technique(s) is highly recommended.

Figure 5: Contents of a research design



Source: author's own illustration

This section provides instructions about formulating the *research design* that includes: (B.1) adopting research strategy, (B.2) choosing sampling technique, (B.3) selecting method of data collection, (B.4) selecting data analysis approach, and (B.5) managing time and resources (see figure 5).

B.1. Adopt Research Method

In *Part II* of this research guide, a detailed orientation of the *research methodology* is presented. That includes a distinction between quantitative and qualitative research, case study research and action research methods. To carry out a research study, the research

²⁷ It is important to understand that the *research scope* determines the type of research design a researcher should use, not the other way around!

design demands a decision to adopt a holistic research methodology. A good research design entails a coherence between the research scope and the research methodology.²⁸

Once you know *what you want to find out* (as you would outline this in your research scope), the methodology about *how you will get that information* would help to describe your research design. For instance, if structured (numerical) information is required to answer the more mechanistic ‘*what*’ question, quantitative research methodology seems the right approach. By contrast, if an in-depth and contextual understanding is required to answer ‘*why*’ and ‘*how*’ questions, then qualitative research methodology is recommended. Similarly, if you want to conduct a detailed, intensive, and context-specific analysis of a case (or phenomena/situation in a policy process) to develop a holistic understanding of a subject, the case study research – often mixed methods approach – would be the most appropriate methodology.

⇒ *REMEMBER: There are no right and wrong strategies. The aspect worth consideration is: how appropriate your research strategy is to your research topic and scope? To get more clarity on this, search and read online/published material, consult your advisor (sponsor DS), and seek feedback from your colleagues and/or people from academia.*

⇒ *NOTE: You must describe in detail your ‘research strategy’ in the research proposal and justify why the proposed strategy was considered appropriate to answer the research question(s) posed in your study.*

B.2. Choose Sampling Technique

Sampling is a process of selecting units²⁹ from a target population and/or policy sector of interest. Since studying a whole population or policy sector is highly unlikely due to time and resource constraints, a (representative) sample helps to study phenomena which fairly allows to generalise the results back to the population. The selection of sampling technique depends on the research objective. Some select samples to maximise in-depth contextual understanding, while others are concerned to make inferences about a whole population using a representative sample. In the latter case, the decision about the sample design demands **probability (random) sampling** to study a larger sample (used in quantitative research), while in the former case it requires **non-probability (non-random) sampling** to study a smaller sample more intensively (used in qualitative research).

²⁸ *Research design* and *research method* are often used as synonymous, but are distinct terms. Research design represents a structure that guides the execution of a research method and the analysis of the subsequent data (Bryman, 2012).

²⁹ The type of object of interest, e.g., individuals, households, universities, cities, firms, etc. The term ‘*unit*’ is used because it is not necessarily people who are being sampled.

⇒ **REMEMBER:** *Sampling is mostly required if your research design includes collection and analysis of primary data. If your research design seeks to collect and analyse secondary data or document analysis, then you may skip sampling from your research plan. Nevertheless, it is important to identify/cite the source and authenticity of secondary data.*

Once you have defined/selected your research population, there are two important considerations underlining sampling: sampling approach and level of sampling.

- *Sampling approach* denotes whether you need to collect primary data using probability sample or non-probability sample; for quantitative or qualitative research, respectively.
- *Level of sampling* refers to the context of sample (e.g., location, group, entities) and sample participants (individuals, actors, households).

Sampling techniques in quantitative research primarily involve random selection (or probability sampling) approach in order to draw a representative sample and generalise results back to the population. Some popular probability sampling techniques³⁰ used worldwide include: Simple random sampling; Stratified random sampling; Systematic sampling; Cluster sampling; and Multi-stage cluster sampling.

Sampling techniques in qualitative research revolve around the notion of *purposive sampling* (or non-random selection). Purposive sampling technique is preferred when a specific (limited) number of individuals carry the most relevant information that is sought. Adopting this technique allows the researcher to select the most productive sample to answer the research questions. It involves individuals who are best placed in the system to provide the required information based on their expert knowledge and position in the system.

The ***purposive sampling*** essentially involves selection of sample cases or participants with a purpose, keeping in view that the sample must be relevant to the research question. Such an approach may enable in-depth exploration of the subject. Since it is a non-probability technique, the sample is not representative enough, hence the results cannot be generalised to a wider population. Although the cases are selected in a non-random manner, the *sample selection* is based on particular characteristics or features in which the researcher is interested. For instance, to study the role of foreign aid in Pakistan, you may want to select, and interview senior officials/experts involved in managing foreign assistance. For this, you may look for potential participants from the government (ministries, departments), donor community (leading multilateral and

³⁰ For details, see Bryman (2012) or search and read online/published material on probability/random sampling.

bilateral donors), development partners (INGOs, NGOs, CSOs), and some from the academia, journalist community and politicians.

To select a representative sample, **quota sampling** technique is used to select a sample consisting of same proportion of individuals as the entire population keeping in view the same characteristics and traits. To draw a sample using this technique, you first need to divide the population into exclusive sub-groups. Calculate the proportion (quota) of each sub-group in the population and apply that to the population to generate a representative sample. Although the selection of cases is made on non-random basis, some scholars consider this approach as good as probability sampling. This technique also allows the researcher to study the perceptions and behaviour within each sub-group.³¹

When developing a purposive sample (or quota sample), the technique demands that you must think critically about the *parameters* of the target population, use your special knowledge and expertise, and pick sample cases carefully. You need to be clear about the *criteria* to be used for inclusion or exclusion of participants (or unit of analysis)! These sampling methods are preferred over other qualitative techniques to avoid selectivity bias as in convenience sampling or snowball sampling.

Convenience sampling (also known as availability sampling) is a non-probability sampling technique in which subjects or units are selected based on convenient accessibility and proximity to the researcher. A convenience sample is simply available *by chance* to the researcher. Units are not purposefully or strategically selected. This technique features quick, ease, speed, and low cost. *For example*, a news reporter walking on the street, asking questions and recording responses of people available there by chance.

Snowball sampling (or chain sampling or referral sampling) is a non-probability sampling technique in which a small group of participants, relevant to the research question, is sampled initially. These sampled participants are approached for collection of data and then asked to identify other participants carrying similar characteristics, or someone they recommend as a useful potential candidate, relevant to the research. These participants will guide the researcher to others, so the sample grows like a *rolling snowball*. *For example*, you wish to study the experiences of medical surgeons in operation theatre. You may be able to identify a few known surgeons you can easily access and talk, but then you would ask them to identify or refer you to their colleagues in other medical centres who carry similar characteristics, such as expertise and experience, and willing to participate in your research.

³¹ Since quota sampling leads to a time and resource intensive research, this technique is recommended for small scale studies, not for wider population.

⇒ *NOTE, you must describe in detail the ‘sampling technique’ used to draw the sample in your research and justify why the proposed technique was considered appropriate to meet the research objective of your study.*

B.3. Select Method of Data Collection

It is essential that the researcher identifies the type of evidence³² required to answer the research question in a convincing way. Once it is clear what kind of information is required, the selection of data collection method (or instrument)³³ should be selected and designed to complete the research design. The research design would be incomplete without knowing what method will be used to collect the required information.

The decision about the ***selection of data collection methods*** primarily depends on the research question of your study, but it may also be influenced by the research design such as context, strategy and timing of the study.

The most important consideration in selection of an appropriate method is ‘*where*’ the required data exist: policy documents, research reports, official correspondence and proceedings, official statistics, or carried by specific community, households and/or individuals. The second consideration is ‘*how*’ to access and/or record that required information. In the case of secondary data, you may need to seek access to the data files owned by respective organisation such as education enrolment, child mortality rate, or Pakistan Social and Living-Standards Measurement (PSLM) survey data. It is important that you should consider the following criteria while selecting your secondary data:

- *Date of publication*: should not be too old, otherwise lack relevance
- *Reliability of the source*: should be hosted/published by a known organisation
- *Quality of data*: should have adequate coverage/rich discussion available
- *Relevance of data*: should carry relevant information for your study
- *Credibility of data*: should be validated, if required

In the case of primary data collection, you would need to draw sample from the target population and get close to the sample to be able to record the first-hand information (raw/primary data). Two considerations would be required: selection of probability or non-probability sampling technique, and selection of the level of sampling (context and participants of your research). These considerations will help you to choose the most

³² Documents, published material, official statistics, primary and/or secondary (quantitative and/or qualitative) data.

³³ Such as survey (structure) questionnaire, semi-structure questionnaire, topic guide interview or focus group discussion. These instruments are discussed in Section 3.3 (C.2).

appropriate method of data collection. A detailed discussion about the methods of secondary data collection and primary data collection is presented in Section 3.3.

⇒ *REMEMBER: Primary data collection is not compulsory for all types of research studies. For instance, if you plan to do a desk study such as document analysis, you will skip this step from your research plan.*

⇒ *NOTE: In your research, you must describe in detail the 'method of data collection' selected to collect the primary data and elaborate why the proposed method was considered appropriate to meet the research objective of your study. In case of secondary data, justify selection of type and source.*

B.4. Select Data Analysis Method

Analysis of data plays crucial role in reaching conclusions and stating recommendations. At the research design stage, before proposal submission, the researcher needs to select and specify the method to analyse the data. There are a number of methods to analyse the data depending upon whether the data were *secondary or primary*, as well as whether it is *qualitative or quantitative*. A detailed discussion about the secondary data analysis and primary data analysis is presented in Section 3.4.

⇒ *NOTE: In your research, you must describe in detail the 'data analysis method' selected to process the primary data and elaborate why the selected method was considered appropriate to meet the research objective of your study.*

B.5. Managing Time and Resources

Most research activities are constrained by time and resources. There is no point in working on a research topic (or assignment) which you cannot complete in given time and available resources. Having said that, it does not mean that research assignments cannot be conducted and completed in a given timeframe. The challenge here is to manage the time and resources available to you.

To manage the time, it is recommended that you should workout the *timeframe* at the outset of your research assignment. The timeframe should indicate all the different stages of your research, and the weeks/dates each activity would start and finish. *Figure 6* presents sample timeframes of research paper assignments for MCMC and SMC, to be completed in 14 and 16 weeks, respectively. Once you generate the timeframe of your research, it is essential that you should monitor the performance so that there is an early warning of slippage.

Figure 6: Sample timeline of IRP assignments for MCMC & SMC

IRP Targets (MCMC)	Week #													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Allocation of research topic	Yellow													
Review of the Literature		Orange	Orange							Orange		Orange		
Research scope			Purple	Purple										
Research design				Purple										
Proposal submission						Red								
Data collection/management					Cyan		Cyan	Cyan						
Data analysis							Blue	Blue	Blue					
Write up (Submission of First Draft)										Light Green	Light Green			
Write up (Submission of Second Draft)												Green	Green	
Write up (Submission of FINAL IRP)														Dark Green

IRP Targets (SMC)	Week #															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Allocation of research topic	Yellow															
Review of the Literature		Orange	Orange								Orange		Orange			
Research scope			Purple	Purple												
Research design				Purple	Purple											
Proposal submission						Red										
Data collection/management					Cyan		Cyan	Cyan								
Data analysis							Blue	Blue	Blue							
Write up (Submission of First Draft)											Light Green	Light Green				
Write up (Submission of Second Draft)													Green	Green		
Write up (Submission of FINAL IRP)															Dark Green	Dark Green

⇒ **NOTE:** Deadlines (dates/time) of activities such as (1) research scope, (2) proposal submission, (3 & 4) submissions of first and second drafts, and (5) final paper/presentation submission will be communicated by the course CI/DS (T&C) office.

To **manage the resources**, it is of foremost importance to know what resources are available to you, and whether they are at your disposal or not? For instance, access to workstation, printing and photocopying, stationary, telephone and recording equipment, and travel funding. These will enable you to establish how financially feasible and practical your research design would be. In addition to these, it is suggested that you should also work on the human and intellectual support aspect.

⇒ **REMEMBER:** Try your level best to formulate a convincing and well-planned research design keeping in view your research question(s) and methodology adopted. From an examiner's point of view, the research design (or methodology) section of your research proposal/research paper would be the most crucial part. A well-designed methodology confirms the validity, reliability and credibility of any research.

3.3. DATA COLLECTION

Data collection is the third step of the research process (*see figure 2*). This is a critical stage of the research process in collecting the information needed to answer the research question. **Data** mainly include numerical values (*quantitative data*) and textual record (*qualitative data*). It can be raw information (*primary data*) or presented as facts and figures (*secondary data*). Processing of data leads to the generation of knowledge and understanding of the phenomena under examination. This section provides instructions about secondary data collection and primary data collection.

C.1. Secondary Data Collection

Secondary data are type of data that has already been collected, processed and published by someone else for a purpose other than yours. Studies in which secondary data are required to answer the research question, researchers need to:

- a) identify the *type*, such as documents and/or official statistics,
- b) *locate* the data, knowing the source of data and access options,
- c) evaluate the *relevance* of data, considering background details of data such as population, sample size, time of data collection, collection mode, questions asked, and form of data, and
- d) assess the *credibility* of data, exploring if the data were collected, processed and used by a credible published research, and whether it can be validated.

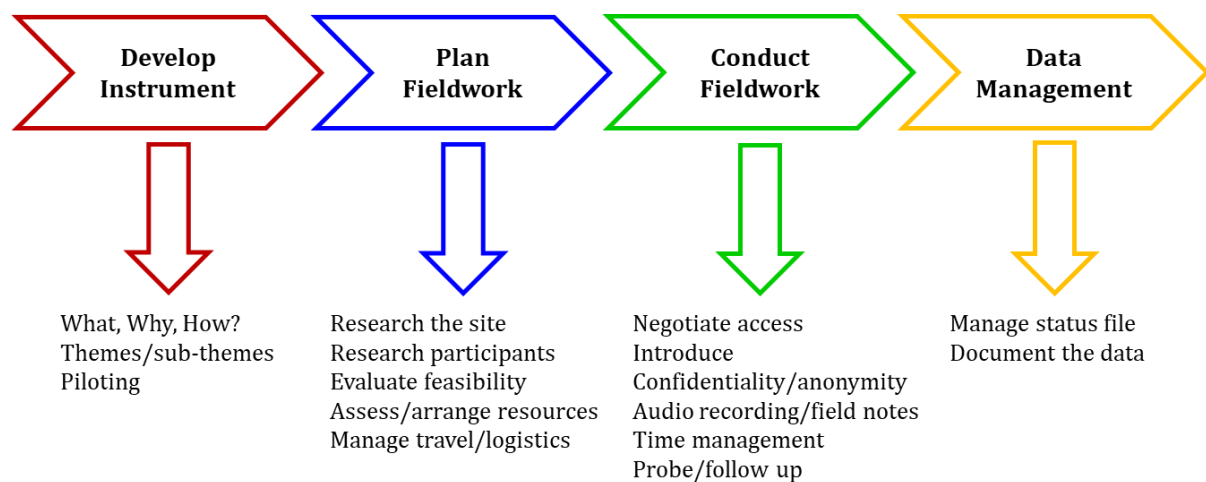
Secondary data collection is time and cost effective as compared to the primary data which requires a lot of effort, time and finances. The secondary data may be of higher quality, depending on the sampling technique, size, statistical precision, and may contain a wide variety of variables. By contrast, the researcher has no control over its quality, the data may not help to address a particular research question, or lack depth and knowledge about the survey strategy.

There is an abundance of *data sources* available on most of the mainstream topics. These include: Pakistan data portal; population census, Pakistan social and living standard measure (PSLM), national accounts, social statistics, agriculture statistics and labour force survey of the Pakistan Bureau of Statistics; Pakistan economic survey of the Ministry of Finance; Status of public sector development expenditure of the respective planning ministry/departments; world development indicators of the World Bank; human development index of the UNDP, etc.

C.2. Primary Data Collection

Primary data collection needs different methods to collect quantitative and qualitative data. **Quantitative data collection** methods aim to collect numerical values using structured questionnaire with closed-ended questions. **Qualitative data collection** method records non-quantifiable observations such as words, behaviour, feelings, etc., using semi-structured or unstructured interview schedule. The choice of quantitative or qualitative methods of data collection depends on the area and scope of your research. Nevertheless, it needs a great deal of preparations: instrument development, piloting, resource management. *Figure 7* presents four steps involved in data collection process.

Figure 7: Data collection process



Source: author's own illustration

⇒ *NOTE: Primary data collection is not compulsory. If you plan to conduct a desk study and your research design does not include collection of primary data, then you will skip this from your research plan.*

In studies involving primary data collection, researchers need to develop a well-thought data collection *instrument* such as questionnaire, interview schedule or topic guide.³⁴ This is the *first step* of the data collection process. Interviews are the most widely used method of data collection. Three major categories of interviews can be identified: the *structured* (formal or standardised) interview; the *unstructured* (informal or unstandardised) interview; and, the *semi-structured* (semi-standardised or focused) interview.

³⁴ *Questionnaire* are used in survey research to collect quantitative data, while *Interview schedule or topic guide* are the formats used in the fieldwork to collect qualitative data.

Structured interview is similar in format to a ‘pencil-and-paper’ survey. It is designed to collect standardised numerical data in large surveys using closed-ended questions. **Unstructured interview** comprises of a ‘topic guide’ including a list of themes, sub-themes and issues to be discussed in a free-flowing discussion with an individual or group. The **semi-structured interview** is a mix of both structured and unstructured interview. It mainly consists of both closed and open-ended questions, and topics. Distinctions between these are presented in *table 2*.

Table 2: Types of interviews

STRUCTURED INTERVIEW	SEMI-STRUCTURES INTERVIEW	UNSTRUCTURED INTERVIEW
Used to collect Quantitative data	Used to collect Qualitative (and Quantitative) data	Used to collect Qualitative data
<i>Instrument:</i> Survey Questionnaire	<i>Instrument:</i> Interview Schedule	<i>Instrument:</i> Interview/Topic Guide
<i>Data collection mode:</i> Survey, Census, Online	<i>Data collection mode:</i> Face to Face Interview, Fieldwork, Online Survey	<i>Data collection mode:</i> Face to Face Interaction, Focus Group Discussion, Observations
Interviewer follows scripted questions; No deviation from question order. → Closed-ended questions	Asymmetrical structure; Questions may be reordered during the interview; → Both open and closed-ended questions	Completely unstructured; Free-flowing conversation; No set order to any question; → Open-ended questions
Working of each question asked exactly as written	Interviewer initiates questions and poses probes in response to Interviewee’s descriptions	Both interviewer and interviewee initiate questions and discuss topics
No adjusting of level of language	Level of language may be adjusted	Level of language may be adjusted
No clarifications or answering of questions about the interview	Interviewer may answer questions and make clarifications	Interviewer may answer questions and make clarifications
No additional questions may be added	Interviewer may add or delete probes to interview between subsequent subjects	Interviewer may add or delete questions between interviews

Source: Modified and amended from Berg, B. L. (2004).

It is always desirable to test the instrument (questionnaire) prior to conduct the survey/fieldwork so that any limitations could be addressed, or desirable changes be made in advance. This testing is called **piloting**. The main objective of piloting is to observe whether the questions asked were clear and understandable to the respondent, flowed well in the discussion, and allowed the researcher to collect the required data.

⇒ *REMEMBER: It is suggested that you organise your questionnaire/interview thematically (in different sections) and arrange questions in a flowing discussion order. This will help you to conduct the interview efficiently and enable you to manage the raw data for further processing (analysis).*

Once the instrument is ready, **planning the fieldwork** is the *second step* of the data collection process. A number of considerations are required here. It is suggested that you must *research the site* of your data collection: explore the locality, language, social and cultural norms, history and politics, and the climate. *Research your participants*: explore their background, expertise, and their social/professional networks. Evaluate the *feasibility* of your fieldwork: calculate time and resources, and plan travel and logistics.

⇒ *NOTE: It is expected that your fieldwork might take longer duration and require more resources as you planned. So, do think about a contingency plan beforehand.*

The next step is to conduct the **fieldwork**. The biggest challenge here is to *negotiate access* to the social setting such as office or household. Access refers to the ability of the researcher to get close to people and situations, to be able to find out what is really happening below the rhetoric. Negotiating access is most difficult in case of *expert interviewing*.³⁵ Arranging interview sessions and conducting face-to-face interviews with experts is often quite challenging. In such scenarios, to negotiate access, you may want to send a formal request for an interview to the potential research participants. An *approach letter* and the *participant information sheet* would be required to approach your participant.³⁶

⇒ *REMEMBER: Experts/senior officials are quite busy individuals and often have tight schedules. It may be quite challenging to convince them to schedule an appointment. You may face lack of interest from some officials. Some might turn down your request straightaway, while others may delay scheduling interview and later stop answering your phone calls or emails. It is therefore suggested that you should utilise your contacts in the network to facilitate the process. In qualitative research, you may want to replace cases*

³⁵ In *expert interviewing*, the interviewees are of less interest as a person than their knowledge and capacities as an expert in a specific field of activity.

³⁶ The *participant information sheet* usually describes: the purpose of the study; areas covered in the research; a request for a face-to-face interview; and clearly stated policy on confidentiality.

(participants) using snowball sampling technique, even when you have chosen your initial sample purposively; purposive-snowball sampling. Do indicate this in your methodology.³⁷

Audio recording is often recommended during the interviews with the consent of the respondents. However, *field notes* can be used where the participants refuse to give consent due to whatever reason. Recording are used to promote accuracy and detail in transcripts. Interviews without audio recording take longer duration and are of lesser quality as compared to the audio files; since writing notes sometimes led to losing concentration, missing interesting points, or capturing exact phrases and language used by the respondents.

Although **data management** is the *final step* of the data collection process, it begins as the fieldwork starts. Data management means that the researcher must check whether there are any obvious flaws in the information collected. It is suggested that a *status file* must be developed to keep a track record of every conversation and commitment during the fieldwork – such as invitation letter, follow-up telephone call, email reply, interview schedule status, date and time of interview, and location of interview. Data management requires *documenting the data*. This includes: recording the data; transcribing the (qualitative) data; and summarising the data in such a way to construct a new reality.³⁸ Data files must be saved and organised in separate folders according to sample groups.³⁹ This will allow the researcher to track the data file/transcript for further cross-referencing and analysis. After the data are collected, you will be ready to proceed to the next step of the research process: the data analysis.

3.4. DATA ANALYSIS

The **data analysis** stage is fundamentally about data reduction. Without reducing the large volume of gathered information, it is highly unlikely to interpret the material, make sense out of it, and generate knowledge for better understanding. Although this remains a challenging stage of the research process, it is also exciting considering the raw information is to be transformed into facts and knowledge; revealing the results.

⇒ *NOTE: It is critically important that you must compare your research findings to the existing findings of the literature review; for both qualitative and quantitative research. This*

³⁷ Published material and online resources are widely available on interviewing skills and techniques.

³⁸ *Summarising* means synthesising the information collected in the interview such as recording the data, writing up interview notes as soon as possible, identify key responses/issues highlighted by the majority, capture verbatim quotes, and group similar results under themes/sub-themes.

³⁹ Give a unique *reference number* to each file. For example, give a unique eight-digit reference number 'GG-UU-RR-QQ' to each data file (interview transcript). GG refers group number, UU refers unit number in each group, RR refers to respondents from each unit, and QQ refers to participant/interview number.

comparison will confirm or contradict the existing beliefs and observations. This is the main rationale of conducting any research.

The consideration in data analysis is that it refers to the analysis of either primary or secondary data. In the latter case, analysis may include document analysis and/or analysis of official statistics. This section provides instructions about conducting secondary data analysis and primary data analysis.

D.1. Secondary Data Analysis

Secondary data analysis involves further processing of existing data, collected by someone else for a distinct purpose. This involves discussing common and contrasting patterns of beliefs and observations within the secondary data related to the research question. Secondary data analysis mostly involves *document analysis* and/or the *analysis of official statistics*.

Although the ***document analysis*** is not very common in social research, but it is highly relevant in policy sciences research; studying stages of the policy process, conducting research of/for policy. The term '*documents*' includes a wide variety of different documentary sources: from personal diaries, letters, and mass media material, to official documents deriving from the state such as national development plans, sectoral policy, research reports, proceedings and official correspondence, etc. In either case, you need to ensure the quality of documents: authenticity and credibility. The problem with document analysis is that sometimes the necessary parts of documents are not available, not accessible, or just missing.

⇒ **REMEMBER:** *It is strongly recommended that you should rely on published or non-classified official documents for your analysis. Using unpublished or classified information would raise questions related to authenticity and credibility of data/ documents.*

Official statistics are statistics published by a state agency or public organisation, such as Pakistan Bureau of Statistics, as a public good. The usage and analysis of official statistics for policy research and public sector decision-making has been in practice globally for centuries. For *research purpose*, use of official statistics for secondary data analysis is considered time and cost effective, and it is often reliable and credible too. You just need to ensure the quality standard of the data.

⇒ **REMEMBER:** *It is important that you rely on one (published) data set for your research as it might lead to complexity if you try to mix/match two or more sources of data to process your analysis. For instance, if you want to study education enrolment rate in Punjab, then rely on either PSLM, or MICS, WDI, HDI, Alif Ailaan! It is recommended because every study selects different sample, indicators & time.*

D.2. Primary Data Analysis

After the collection and documentation of raw information, the data are to be coded and analysed to elicit findings. In *qualitative* studies, data analysis involves arranging data thematically, identifying patterns within and across responses, and analysing them critically in order to answer the research question. Contrary to this, data analysis for *quantitative* studies entail critical analysis of numerical values, interpretation of trends, and attempts to find rationale underlining the main findings using theoretical framework. The results will then be reviewed and summarised in such a manner that would scientifically and logically explain the phenomena under investigation.

The process of ***coding*** is an essential first step in the analysis of primary data. Coding is the operation by which data are broken down, conceptualised, and put back together in a new way. Coding in qualitative research is a somewhat different process from coding in relation to quantitative data. With the latter, coding is more or less solely a way of managing data using a statistical programme; whereas, in qualitative data analysis, coding is an important first step towards the generation of theory.⁴⁰

In qualitative research, the ***coding process*** begins with the text, coding categories, and moving on to identify trend and themes. The purpose of this is to simplify the transcript data and to achieve simple conceptual schema. Initially the data is to be transcribed and reviewed line by line. A close reading through the transcripts would help to identify themes or categories to which the data related, and which is relevant to the research focus. It is necessary to evaluate and explore the data in relation to the distribution of opinion across groups and individuals; groups often carry different opinions and viewpoints. It is critical to capture these distinctions in order to explore the dynamics of the social setting. Besides this, the interview questions and conceptual framework can also be used to generate a number of pre-existing themes, subthemes and codes.

Unlike quantitative data analysis, there are a no clear rules and procedures for analysing qualitative data. The preference of analysis method selection depends on the nature of qualitative enquiry and rationale developed in the research scope. A number of qualitative data analysis methods are available for consideration. Here, we discuss the most commonly used thematic analysis, narrative analysis, and content analysis for qualitative research.⁴¹

Thematic analysis: is the most common approach to analyse the qualitative data. The method involves the identification of key themes, concepts or categories. In this approach, the researcher starts with some general themes derived from the literature

⁴⁰ See Bryman (2012)

⁴¹ See Bryman (2012); Ritchie & Lewis (2003)

review and add/merge themes and sub-themes as he/she goes along. This method of data analysis is highly recommended to study qualitative cases and phenomena in policy and social sciences.

Thematic analysis is often associated with Ritchie and Lewis's (2003) '*thematic framework*' method to analyse the data. The framework analysis requires three forms of activities: (a) data management, in which the raw data is to be reviewed, coded and sorted; (b) descriptive accounts, in which the researcher identifies key dimensions, calculates the range and diversity of phenomena; and (c) exploratory accounts, in which explanations are to be built to describe and articulate the collective perceptions and experiences of the respondents in a meaningful way.

Narrative analysis: identifies the basic story which is being told, focusing on the way an account or narrative is constructed, the intention of the teller and the nature of the audience as well as the meaning of the story or plot. In simple words, the narrative analysis focuses on the attention shift from *what actually happened* to *how do people make sense of what happened*, and to *what effect*.

Content analysis: is an approach that analyse both the content and context of documents and texts. In this method, researcher identifies themes, seeks to quantify content and the frequency of its occurrence. The content analysis helps to present the processed information in percentages, averages and in ranges.

The application of content analysis comprised of three distinct approaches: conventional, directed, or summative. In *conventional* content analysis, coding categories are derived directly from the text data. The *directed* approach starts with a theory or relevant research findings as guidance for initial codes. While, a *summative* content analysis involves counting and comparisons, usually of keywords or content, followed by the interpretation of the underlying context.⁴²

3.5. WRITING RESEARCH

Writing research is the *final* stage of a research process. Through this, you will disseminate the findings of your research and convey policy recommendations to the relevant audience. The foremost thing you would need to do is to start organising your material and create the outline of your research. Once the tentative structure of your study is in front of you, start filling the sections with the material. This will lead you to your *zero draft*. You then need to work in and across sections, critically reviewing and

⁴² See Hsieh & Shannon (2005)

formatting your material and produce the *draft*. Get feedback on that from your Faculty Advisor and make revisions towards the *final* product and submit.

Detailed guidelines for writing research proposal and individual research paper is presented in *Annex I*. The annex provides specific guidelines about: proposed contents/structure of the research document, writing & presentation style to be followed, procedure to complete and submit the research assignment, and criteria based on which the evaluation will be made. Guidelines for Current Issue Presentation, Case Study Research, and Simulation Exercise are presented in *Annex II, III and IV*, respectively. Detailed guidelines for Citation and Referencing style, both manually and automatically using MS Word, are presented in *Annexes V*, followed by *Annex VI* that briefly outlines Avoiding Plagiarism. Finally, *Annex VII* highlights some key considerations for producing a good quality research.

BIBLIOGRAPHY

(RECOMMENDED READINGS)

- BECKER, S., BRYMAN, A. & FERGUSON, H. (eds). 2012. *Understanding Research for Social Policy and Social Work: Themes, Methods and Approaches*. Bristol: The Policy Press.
- BERG, B. L. (ed.). 2007. *Qualitative research methods for social sciences*. New York: Pearson Education, Inc.
- BRYMAN, A. 2012. *Social Research Methods*. Oxford: Oxford University Press.
- FLICK, U. 2009. *An Introduction to Qualitative Research*. London: Sage.
- RITCHIE, J. & LEWIS, J. 2003. *Qualitative Research Practice*. London: Sage.
- SILVERMAN, D. 2005. *Doing Qualitative Research*. London: Sage.

(RECOMMENDED ONLINE RESOURCE)

- Research process
<https://research-methodology.net/research-methodology/research-process/>
- Research methods
<https://research-methodology.net/research-methods/>
- Sampling
<https://research-methodology.net/sampling-in-primary-data-collection/>
- SAGE research methods
<http://methods.sagepub.com/>
- Harvard style citations
<https://library.leeds.ac.uk/skills-citations-harvard>
- Harvard style references
<https://library.leeds.ac.uk/skills-referencing-harvard>
- APA, MLA, Chicago Style – Automatically format bibliographies
<https://support.office.com/en-us/article/apa-mla-chicago-%E2%80%93-automatically-format-bibliographies-405c207c-7070-42fa-91e7-eaf064b14dbb>

ANNEX I: GUIDELINES FOR INDIVIDUAL RESEARCH PAPER

ACTIVITY TYPE	Individual activity
PROCESS/PROCEDURE	<ul style="list-style-type: none"> ▪ Each participant will be allocated a RESEARCH TOPIC during the first/second week of the course. ▪ A Faculty Advisor (Syndicate DS) will be allocated to all participants for research supervision. ▪ Each participant will be required to submit the following deliverables: <ul style="list-style-type: none"> ○ Research Scope ○ Research Proposal ○ First Draft ○ Second Draft ○ Final IRP ▪ Your initial tasks will be to submit a RESEARCH SCOPE (500 words), followed by submission of a RESEARCH PROPOSAL (1000 words) to your Faculty Advisor. Once reviewed and approved by your Faculty Advisor, you will be allowed to work on your IRP data collection, analysis and writeup. ▪ Regular contact and consultations with the Faculty Advisor is recommended during the entire process of research on the IRP. The participant should follow his/her instructions and comments carefully. ▪ Participants are encouraged to interact with guest speakers and sector specialists, and also consult experts during Local Visits and Inland Study Tour wherever relevant to the topic/subject of their IRP. ▪ Tentative timeline of your IRP deliverables is shown in <i>figure 6</i>. Submission of your FIRST IRP DRAFT will be expected somewhere in the second term of the course. By this time, you should be able to share the Preliminary Findings of your research. ▪ Submission of your SECOND IRP DRAFT will be expected after a couple of weeks of your first draft. By this time, you should be able to share the key findings of your research, draw main conclusions and recommendations, and identify key messages coming out of your research.

	<ul style="list-style-type: none"> ▪ Revise the first and second drafts in light of the comments suggested by your Faculty Advisor. Revisit your Introduction section to make any final changes and write an Abstract. <p>A good ABSTRACT includes: purpose of research (objectives); main phrases from your Introduction section (scope); very briefly state your research methodology; share key findings (conclusions) and important policy recommendation. You can divide the abstract in two paragraphs. In the <i>first para</i>, include abstract from the introduction, scope and methods used. In the <i>second para</i>, articulate the key findings and recommendations coming out of your research. Make sure that there is consistency between the information presented in the abstract and in the research write up.</p> <p>Before the final submission, please make sure that you have edited the whole IRP carefully for an effective, harmonious, and an error-free copy. It should be coherent in structure, systematically organised, and free of errors of expression, spellings, punctuation and grammar. Finally, make sure that your final IRP is within the prescribed word count. You are now ready to submit your final IRP.</p> <p><i><u>NOTE:</u> Each deliverable, including the final IRP, must be uploaded on the online Portal or submitted via email to the respective Faculty Advisor (copy to Documentation Section/Training Wing) within the given time. In addition, TWO HARD COPIES of Final IRP, signed by the participant, must be submitted to the Documentation Section/ Training Wing.</i></p> <p><i><u>NOTE:</u> Submission deadlines (dates/time) of IRP deliverables such as research scope, research proposal, first and second drafts, and final paper/presentation will be communicated separately by the course CI/DS (T&C) office.</i></p>
<p>CONTENT/STRUCTURE OF RESEARCH PROPOSAL</p>	<p>SAMPLE CONTENTS/STRUCTURE OF A RESEARCH PROPOSAL</p> <ul style="list-style-type: none"> ▪ Title of research ▪ Introduction (500 words) <ul style="list-style-type: none"> ○ Background & Introduction ○ Research scope ▪ Literature review (250 words) ▪ Methodology (250 words) <ul style="list-style-type: none"> ○ Research method(s) ○ Data sources ▪ Working bibliography

	<p><i>NOTE: The word limit of a research proposal is 1000 words. This does not include the Title Page and working Bibliography. There is no need to include a Table of Contents.</i></p>
<p>CONTENT/STRUCTURE OF INDIVIDUAL RESEARCH PAPER</p>	<p>SAMPLE CONTENTS/STRUCTURE OF AN INDIVIDUAL RESEARCH PAPER (IRP)</p> <ul style="list-style-type: none"> ▪ Initial pages <ul style="list-style-type: none"> ○ Title page (<i>see Annex I-A</i>) ○ Abstract (<i>300-400 words</i>) ○ Table of Contents ○ List of abbreviations ○ List of tables/figures ▪ Introduction (<i>1000-1500 words</i>) <ul style="list-style-type: none"> ✓ Introduce your topic; briefly talk about the background/context; clearly state your research argument, why this research is important and what’s new about it – present some evidence (existing debate or secondary data) to support your argument. ✓ Research Scope must include aim/objective(s) of your research; statement of problem; research question(s); establish link/relevance with the existing public policy debate; and define boundaries of your research. ▪ Review of Literature (<i>1000-1500 words</i>) <ul style="list-style-type: none"> ✓ See Section 3.1 (A.2) ▪ Research Methodology (<i>700-1200 words</i>) <ul style="list-style-type: none"> ✓ State your research methodology in detail. Tell why the chosen method(s) was considered appropriate for your study. See Section 3.2 (B.1) ✓ In case primary data collection was involved in your research methodology, share the Sampling Technique used in your study. State how the sample was drawn from the target population, and what was the criteria of selection. See Section 3.2 (B.2) ✓ Clearly indicate the Data Sources (especially in case of secondary data) and/or state in detail the Data Collection process (especially in case of primary data). See Section 3.2 (B.3) & 3.3, respectively. ✓ Indicate how did you plan to manage the data and what data analysis approach was considered to draw findings. See Section 3.2 (B.4) & 3.4, respectively.

	<ul style="list-style-type: none"> ▪ Findings and Discussion (2000-3000 words) <ul style="list-style-type: none"> ✓ This section is your data interpretation and analysis section; can be divided into sub-sections as per your research requirements. See Section 3.4. <p style="margin-left: 20px;">Where needed, divide/arrange your analysis thematically into more than one section. In each (thematic) section, arrange your findings and discussion under subthemes.</p> ▪ Conclusion (300-600 words) <ul style="list-style-type: none"> ✓ It is suggested to briefly restate your objective/research questions and reemphasise the contribution of your research. ✓ The conclusion of your research should be a brief of ‘key messages’ coming out of your research, rather just a summary of your study. State clearly ‘what did your research find’ and ‘how relevant are your findings with the existing debate/understanding’. ✓ Avoid writing new information, data or source in your conclusion. Stick to your scope, key findings and the take away. ▪ Policy Recommendations (300-500 words) <ul style="list-style-type: none"> ✓ On the basis of your research findings, make (actionable) suggestions keeping in view the ‘how’ part. For instance, you may like to suggest “there is need to improve governance in the public sector”, but this statement lacks “how to improve governance in the public sector.” ✓ Instead of creating a long wish-list, concentrate on a few, but concrete policy recommendations. They should be actionable, with precise, practical implementation strategy. ▪ References/Bibliography <ul style="list-style-type: none"> ✓ Add a comprehensive List of References/Bibliography at the end of the paper, after the Conclusion and Recommendations. Follow the Style recommended by the Institute. (See <i>Annex IV</i> for manual and automatic Citations and Referencing) <p><i>REMEMBER: The word limit of an IRP is 6,000 words. This does not include initial pages and references/bibliography. You must mention your final IRP word count at the bottom of the table of contents!</i></p>
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	<p><i>NOTE: Adding annexes at the end of IRP are not recommended. However, if unavoidable (such as questionnaire/interview schedule of your research), then mindful that words in annex(es) will be counted towards your IRP word count.</i></p>
<p>WRITING & PRESENTATION STYLE</p>	<p>WRITING STYLE FOR IRP (AND REPORT) WRITE UP (USING MS WORD)</p> <p>TEXT FONT: ‘Cambria’ or ‘Times New Roman’</p> <p>TEXT SIZE & ALIGNMENT</p> <ul style="list-style-type: none"> ▪ Heading 1: Cambria 16 Bold, Centre aligned ▪ Sub-Heading 2: Cambria 14 Bold, Left aligned ▪ Sub-Heading 3: Cambria 12 Bold, Italic, Left aligned ▪ Text (main body): Cambria 12, Justified ▪ Text (bullet points): Cambria 12, Left aligned ▪ Text (table): Cambria 11, Left aligned/Justified ▪ Text (footnote): Cambria 10, Left aligned ▪ <i>Text (table/figure source): Cambria 10, Italic, Left aligned</i> <p>LINE SPACING</p> <ul style="list-style-type: none"> ▪ 1.15 Line spacing for main body text ▪ 1.15 Line spacing for text in table ▪ 1.0 (single) Line spacing for text in footnote <p>PARAGRAPH SPACING</p> <ul style="list-style-type: none"> ▪ 12 before & 12 after for main body text ▪ 6 before & 6 after for bullet points and table ▪ 0 before & 0 after for text in footnote <p><i>NOTE: Although main Headings (Heading 1) and Sub-headings (Heading 2) must be numbered (such as 1 and 1.1), other sub-headings (Heading 3, 4, etc.) and paras must NOT be numbered!</i></p> <p>TABLES & FIGURES</p> <p>Tables and figures (such as map, flow chart or diagram) should be numbered consecutively, but separately in their own categories. In case of more than one table and/or figure inserted, separate lists of tables and figures must be added at the beginning (after the list of contents) in the document. Sources should be given immediately below the table and figures. Like any other kind of secondary data source, these need to be properly cited.</p>

	<p>USE OF ACRONYMS</p> <p>Acronym are usually used to avoid repeating the same word or phrase throughout the same piece of writing. It is recommended that when you use an acronym in your document for the first time, complete words or phrase should be written out with a short-form placed in brackets immediately after. For example, Ministry of Foreign Affairs (MOFA) or National School of Public Policy (NSPP). This way, it would be clear to the readers exactly what the letters ‘MOFA’ and ‘NSPP’ mean. In case of technical terminology or concept, you may want to briefly define/explain it in the footnote when used first time.</p> <p><i>REMEMBER: In case of using more than 4-5 different acronyms in a single document, a list of abbreviations/acronyms must be added at the beginning (after the list of contents).</i></p> <p>FOOTNOTES</p> <p>A <i>footnote</i> is a reference, brief explanation, or brief explanatory comment placed at the bottom of a page corresponding to the item cited in the main body text above. Participants may use footnotes (not Endnotes) to define a concept/terminology, explain a phenomenon, and/or add an explanatory comment. For citations in the paper, in-text citations are suggested; please follow instructions for Citations given in <i>Annex V</i>.</p> <p>PAGE NUMBERS</p> <p>Page numbers must be used for all the pages (at the bottom of the page, center aligned) except the title page. Roman numerals must be used for all the pages in preliminaries/initial pages, except the title page.</p> <p>MARGINS & PAGE SIDES</p> <p>Select ‘normal’ margins for your paper/report:</p> <ul style="list-style-type: none"> ▪ Top 2.54 cm ▪ Bottom 2.54 cm ▪ Left 2.54 cm ▪ Right 2.54 cm <p><i>NOTE: Take print on both sides of the page.</i></p> <p>CITATION & REFERENCING</p> <p>Detailed guidelines are provided in <i>Annex V</i>.</p>
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	<p>DATE & TIME FORMAT</p> <p>Two 'DATE' formats are recommended: [01 January 2019] and [January 01, 2019]. Similarly, two 'TIME' formats are recommended: [3:10 PM] and [1510 Hrs].</p> <p><i>NOTE: Whichever date and time format/style you choose, it should be used consistently throughout the document.</i></p> <p>PRESENTATION STYLE FOR IRP WRITE UP (USING MS POWERPOINT)</p> <p>Follow presentation instructions given in <i>Annex II</i>.</p>
<p>EVALUATION CRITERIA</p>	<p>Your IRP will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> ▪ Knowledge (<i>Scope, literature review, and data used</i>) ▪ Contribution (<i>Analysis, conclusion and recommendations</i>) ▪ Methodology (<i>Research methods used</i>) ▪ Content (<i>Relevance and rich/in-depth discussion & analysis</i>) ▪ Layout, language and literature/data sources used, and ▪ Plagiarism check and meeting the submission deadlines.

ANNEX I-A: SAMPLE TITLE PAGE OF INDIVIDUAL RESEARCH PAPER



INDIVIDUAL RESEARCH PAPER

TITLE OF THE INDIVIDUAL RESEARCH PAPER

by

Full Name of the Participant

Service Group

99th Mid Career/Senior Management Course
National Institute of Management, Islamabad

A paper submitted to the Faculty of the National Institute of Management, Islamabad, in partial fulfilment of the requirements of the 99th Mid Career/Senior Management Course.

I declare that this paper is the end-product of my own efforts, research and writing and has not, in whole or in part, been submitted elsewhere for assessment and its contents are not plagiarised. The paper reflects my own views and are not necessarily endorsed by the Faculty or the Institute.

Signature: _____

Date:

Paper Supervised by:

Full Name of Faculty Advisor

Designation, Institute

ANNEX II: GUIDELINES FOR CURRENT ISSUE PRESENTATION

ACTIVITY TYPE	Individual Activity
PROCESS/PROCEDURE	<ul style="list-style-type: none"> ▪ The aim of Current Issue Presentation (CrIP) is to encourage the participants analysing a current issue impinging upon the socio-cultural, economic, political and/or any other facet of life in Pakistan which has serious policy implications with a view to promote their understanding about the strategizing the implementation of public policy. ▪ Three CrIP topics are invited from each participant and one is finalised in a Faculty Meeting. CrIP topic should relate to Pakistan and to a policy issue in current public debate, and preferably based on the participant's past work experience. ▪ Perspective of the selected CrIP topic is required to be discussed by the participant with the faculty advisor. Eventually, each participant will be allocated a CrIP topic during the first term of the course. ▪ Each CrIP will be of 30 minutes; 20 minutes for the presentation and 10 minutes for Faculty Review/Q&A. ▪ Schedule of submissions and presentations will be reflected in the weekly programme. DS (T&C) Office will issue the schedule and instructions accordingly. <p><i>NOTE: Submit the soft file via online Portal or send email to the Documentation Section/Training Wing (Cc to all Faculty Members) before the deadline.</i></p>
CONTENT/STRUCTURE OF CRIP	<p>SAMPLE CONTENTS/STRUCTURE OF CRIP PRESENTATION</p> <ul style="list-style-type: none"> ▪ Title Slide (<i>see Annex II-A</i>) ▪ Sequence of Presentation (<i>Contents slide</i>) ▪ Currency of the Topic (<i>news clipping</i>) ▪ Introduction ▪ Scope (<i>including Statement of Problem</i>) ▪ Analysis of Issues & Challenges ▪ Conclusion ▪ Recommendations <p><i>NOTE: Rehearsal prior to the final presentation is strongly recommended.</i></p> <p>SAMPLE CONTENTS/STRUCTURE OF CRIP WRITE UP</p> <ul style="list-style-type: none"> ▪ Title Page ▪ Introduction

	<ul style="list-style-type: none"> ▪ Scope (<i>including Statement of Problem</i>) ▪ Analysis of Issues & Challenges ▪ Conclusion ▪ Recommendations ▪ References/Bibliography <p><i>NOTE: The page limit for CrIP write up is 5-6 pages. This does not include the title page. There is no need to include Table of Contents and Annexes.</i></p>
<p>WRITING & PRESENTATION STYLE</p>	<p>STYLE FOR CRIP PRESENTATION (USING MS POWERPOINT)</p> <ul style="list-style-type: none"> ▪ The presentation should be in line with the write up submitted. ▪ Font size 28-30 for TEXT and 32-36 for HEADINGS should be used. Stick to one Text Font/Theme throughout the presentation. ‘Cambria’ and ‘Times New Roman’ fonts are recommended. ▪ Suitable colour scheme and background should be used. Avoid dark and/or shocking colours. Avoid too many Animations and Transitions. ▪ Give proper citation wherever required. Adopt in-text or use Footnotes to add citation. ▪ Insert ‘Slide Number’ and ‘Date’ at the bottom of all slides, except for the Title Slide. <p>STYLE FOR CRIP WRITE UP (USING MS WORD)</p> <ul style="list-style-type: none"> ▪ Follow writing instructions given in <i>Annex I</i>.
<p>EVALUATION CRITERIA</p>	<p>Your CrIP will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> ▪ Substance/Content (<i>Relevance and rich/in-depth discussion, analysis, key messages and recommendations</i>) ▪ Clarity/Logic (<i>knowledge, scope, literature review, and analysis of data/facts</i>) ▪ Expression/Flow of Presentation (<i>presentation style</i>) ▪ Time Management (<i>both submission and presentation</i>) ▪ Plagiarism check.

ANNEX II-A: SAMPLE TITLE SLIDE OF CRIP (PRESENTATION)



NATIONAL INSTITUTE OF MANAGEMENT, ISLAMABAD
99th Mid Career/Senior Management Course

TOPIC OF YOUR CRIP

Name & Service Group of the Participant

Sponsor DS: Name of Your Syndicate DS

ANNEX III: GUIDELINES FOR CASE STUDY RESEARCH

ACTIVITY TYPE	Group Activity (Syndicate)
PROCESS/PROCEDURE	<ul style="list-style-type: none"> ▪ Case Study Research (CSR) training material (Participants' Guide) will be given to all participants on the day before the activity is scheduled as per the weekly programme issued by the DS (T&C) Office. ▪ All participants will be required to assemble in their respective Syndicates and read the Participants' Guide thoroughly. ▪ The Sponsor DS of respective Syndicates will administer the initial group discussion. He/She will nominate a Chairperson, a Secretary, and constitute Sub-Groups to conduct the research. Duties and responsibilities of Chairperson, Secretary and Sub-Groups will also be assigned at this initial group interaction. Detailed instructions and submission deadline will be provided in the Participants' Guide. <p><i>REMEMBER: It is an in-house exercise. Participants are NOT allowed to leave the Institute's premises for interviews or data collection. However, participants are encouraged to get in-touch with relevant organisations/officers and experts on phone, and use email, and/or websites to collect required information.</i></p> <ul style="list-style-type: none"> ▪ Each Syndicate (Case Study Research Group) will be required to submit the following deliverables: <ul style="list-style-type: none"> ○ CSR Report (to be compiled and edited by the Secretary and Chairperson) ○ Original reports of all Sub-groups (to be submitted by the Chairperson, along with the final CSR Report) <p><i>NOTE: The Chairperson will submit the CSR Report on the Portal or via email to the respective Syndicate DS and copy to Documentation Section/ Training Wing, within the given timeline. The Chairperson will also submit the original reports (inputs) provided by all sub-groups to the respective Syndicate DS via email.</i></p>
CONTENT/STRUCTURE	<p>SAMPLE CONTENTS/STRUCTURE OF A CASE STUDY RESEARCH REPORT</p> <ul style="list-style-type: none"> ▪ Initial pages <ul style="list-style-type: none"> ○ Title page (see Annex IV-A) ○ Table of Contents ○ List of abbreviations

	<ul style="list-style-type: none"> ○ List of tables/figures ▪ Background and Introduction (300-700 words) <ul style="list-style-type: none"> ○ Background and Introduction ○ Document analysis/Literature review ▪ Situation Analysis (300-700 words) ▪ Research Methodology (200-300 words) <ul style="list-style-type: none"> ○ Research method(s) ○ Data sources ▪ Case Study Analysis (1000-1500 words) <ul style="list-style-type: none"> ○ RQ.1/Thematic analysis (SG-I) ○ RQ.2/Thematic analysis (SG-II) ○ RQ.3/Thematic analysis (SG-III) ○ RQ.4/Thematic analysis (SG-IV) ▪ Conclusions (200-300 words) ▪ Policy Recommendations (200-300 words) ▪ References/Bibliography <p><i>NOTE: The word limit of a CSR Report is 3,000 words. This does not include initial pages and references/bibliography. You must mention your final CSR Report word count at the bottom of the Table of Contents! The 'Case Study Analysis' section is your thematic analysis section. This section should be divided into sub-sections as per the number of sub-groups assigned specific (CSR) research questions.</i></p> <p><i>REMEMBER: On the Title Page, instead of the Service Group and Role Assigned in Annex IV-A, write the names of the Chairperson, Secretary, and all members of the Case Study Research Group.</i></p> <p><i>IMPORTANT: The CSR Chairpersons are required to submit TWO HARD COPIES of the Final Report to the Documentation Section/ Training Wing before the deadline.</i></p>
<p>WRITING & PRESENTATION STYLE</p>	<p>Follow the writing instructions given in <i>Annex I</i>.</p> <p><i>NOTE: There is no group presentation of CSR.</i></p>
<p>EVALUATION CRITERIA</p>	<p>Your CSR Report will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> • Ability to identify the problem and analyse the data • Articulate/map the situation analysis • Methodology (<i>Research methods used</i>) • Content (<i>Relevance and rich/in-depth discussion and analysis</i>) • Layout, language and literature/data sources used • Plagiarism check and submission deadline

ANNEX IV: GUIDELINES FOR SIMULATION EXERCISE

TYPE	Group Activity (assigned Syndicates & RAGs)
PROCESS/PROCEDURE	<ul style="list-style-type: none"> ▪ Simulation Exercise (SE) training material will be given to all participants on the day as per the schedule issued by the DS (T&C) Office. ▪ The Sponsor DS will brief the participants about the aim, objectives, scope, requirements and timeline of the Simulation Exercise. Detailed instructions will be provided in the training material. ▪ Participants will be allocated specific groups (Syndicate and Research & Analysis Group-RAGs) and assigned specific roles as per the requirement of each research group activity. ▪ Syndicates and RAGs will be allocated to Faculty members (<i>Supervising DS</i>), who will supervise the research activities. ▪ After the SE briefing, all participants will be required to assemble in their respective Syndicates and RAGs, and read/discuss the training material thoroughly. Respective Syndicate/RAG leaders are required to plan their activities accordingly. <p><i>NOTE: This exercise is based on 'Action Research' model. Participants are required to act as a team to accomplish the task assigned to them and execute their research activities as per given instructions and within timeline.</i></p> <p><i>REMEMBER: Every participant is required to fully understand and adopt the role assigned to him/her.</i></p> <ul style="list-style-type: none"> ▪ Each Syndicate/RAG will be required to submit the following deliverables: <ul style="list-style-type: none"> ○ FIRST DRAFT (<i>to be submitted via email by the Syndicate Chairperson/RAG Leader to the respective Supervising DS only</i>) ○ FINAL REPORT * ○ PRESENTATION * ○ REVISED REPORT * ○ ORIGINAL REPORTS * (<i>of all group members</i>) <p><i>NOTE: * The Syndicate Chairperson/RAG Leader will upload the final report and presentation on the online Portal <u>OR</u> submit via</i></p>

	<p><i>email to the Documentation Section/Training Wing (Cc to the respective Supervising DS and Chief Instructor), within the given timeline. They are also required to submit the soft files of revised report and all the original reports (inputs) provided by their group members.</i></p> <p><i>The revised report is to be re-submitted in light of the comments received from the worth Review Panellist. Don't forget to highlight the changes made in the revised report.</i></p> <p><i>IMPORTANT: Syndicate Chairpersons/RAG Leaders are required to submit FOUR HARD COPIES of the Final Report to the Documentation Section/Training Wing before the deadline.</i></p>
<p>CONTENT/STRUCTURE</p>	<p>SAMPLE CONTENTS/STRUCTURE OF A SIMULATION EXERCISE REPORT</p> <ul style="list-style-type: none"> ▪ Initial pages <ul style="list-style-type: none"> ○ Title page (<i>see Annex IV-A</i>) ○ Executive Summary (<i>one page</i>) ○ Table of Contents ○ List of abbreviations ○ List of tables/figures ▪ Introduction (<i>500-1000 words</i>) <ul style="list-style-type: none"> ○ Introduction and Background ○ Review of literature/Document analysis ○ Scope (<i>TORs</i>) ○ Organisation of the Report ▪ Research Methodology (<i>300 words</i>) <ul style="list-style-type: none"> ○ Research methods ○ Data sources ▪ Section I: Situation Analysis ▪ Section II: Key Issues & Challenges (<i>Analysis</i>) ▪ Section III: (<i>if required</i>) ▪ Key Questions ▪ Action Plan (<i>Goals, Targets, KPIs, Executing Agency, Timeframe and Assumptions for solving problems</i>) ▪ Contingency Plan ▪ Bibliography <p><i>NOTE: Length of the Report must NOT exceed 20 pages. Title page, initial pages and bibliography will NOT be counted. Annexes are NOT encouraged, nevertheless if used, will be counted towards page limit. Report and presentation should be properly cited and referenced.</i></p>

	<p>SAMPLE CONTENTS/STRUCTURE OF A SIMULATION EXERCISE PRESENTATION</p> <ul style="list-style-type: none"> ▪ Title slide ▪ Composition of Syndicate/RAG ▪ Sequence of Presentation ▪ Introduction ▪ Scope ▪ Research Methodology ▪ Situation Analysis ▪ Key Issues & Challenges ▪ Key Questions ▪ Action Plan ▪ Contingency Plan <p><i><u>NOTE:</u> The schedule of SE presentations will be issues separately by the DS (T&C) Office.</i></p> <p><i><u>REMEMBER:</u> SE group presentation rehearsal prior to the final presentation is strongly recommended.</i></p>
<p>WRITING & PRESENTATION STYLE</p>	<p>For write up, follow the instructions given in <i>Annex I</i>.</p> <p>For presentation, follow the instructions given in <i>Annex II</i>.</p>
<p>EVALUATION CRITERIA</p>	<p>Your Simulation Exercise Report and Presentation will be evaluated based on the following criteria:</p> <ul style="list-style-type: none"> • Ability to identify key issues and analyse the data/information • Contribution as leader/team member in group discussions, facilitation in research and analysis, and finalisation of report • Performance in presentation and Q&A session • Content (<i>Relevance and rich/in-depth analysis</i>) • Layout, language and literature/data sources used • Plagiarism check and submission deadline

ANNEX IV-A: SAMPLE TITLE PAGE OF SIMULATION EXERCISE REPORT

National Institute of Management, Islamabad
99th Mid Career/Senior Management Course

SIMULATION EXERCISE - #**Title of the Simulation Exercise**

(Dates 'from-to' of Simulation Exercise)

TITLE OF YOUR SYNDICATE/RAG ASSIGNMENT

Syndicate/RAG #			
Sr.#	Name	Service Group	Role Assigned
1			
2			
3			
4			
5			
6			

Sponsor DS: **Full Name of the Syndicate/RAG DS**

ANNEX V: GUIDELINES FOR CITATION AND REFERENCING

This section presents the guidelines related to citation and referencing. **Referencing** is an acknowledgement that you have used a published or unpublished material belonging to other authors in your assignments or written work. This serves two purposes: acknowledgement of the source and allows the reader to trace the source. When you use another author's work, referring to ideas and/or findings, you must include the author's or editor's surname and indicate the year of publication in the text of your work. This acknowledgement is called **Citation**.⁴³ At the end of your assignment or written work, you must add a list of all the relevant sources of information that you have used to complete your study.

⇒ *REMEMBER: Strictly follow the instructions of your faculty (CI & DS T&C) regarding the Citation and Refencing style recommended at the Institute! Use that style for all research activities including: current issue presentations, individual research paper, case study research, simulation exercises, and tutorial discussions. It is important to understand that if you ignore other authors' work in your study, you could be accused of plagiarism.*

Proper citation and referencing are crucial to carry out a successful research, hence it is important to know how to cite and reference a source. The most common styles include APA⁴⁴, MLA⁴⁵, Chicago⁴⁶ and Harvard. You can either insert citations and references/bibliography manually or use EndNote and/or MS Word (References Tab) to insert your citations and produce a reference list/bibliography within no time; the latter is recommended at NSPP. This annex presents both approaches: to cite and reference manually (using Harvard Style as example), and to manage sources in MS Word.

V-A Managing Citations Manually (Harvard Style)

You are required to adopt the following rules for Harvard Style relating to **citations** depending on the number of authors, and if you are citing a direct quotation.⁴⁷

A.1.	Citing one author	<ul style="list-style-type: none"> ▪ A recent study investigated the effectiveness of micro-finance tools in alleviating poverty (Aslam, 2015). ▪ Aslam (2015) has investigated the effectiveness of micro-finance tools in alleviating poverty.
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⁴³ Citations are usually in-text and are different from the Footnotes and Endnotes; the former are placed at the bottom of the page while the latter are placed at the end of the document.

⁴⁴ American Psychological Association (APA): <https://apastyle.apa.org/>

⁴⁵ Modern Language Association (MLA): <https://style.mla.org/mla-format/>

⁴⁶ Chicago Manual of Style: https://www.chicagomanualofstyle.org/tools_citationguide.html

⁴⁷ More details available here: <https://library.leeds.ac.uk/skills-citations-harvard> [Accessed on 10th July 2019]

A.2.	Citing two or three authors	<ul style="list-style-type: none"> ▪ The aid architecture has changed fundamentally since the aid landscape now includes new players (Fengler & Kharas, 2010). ▪ Recent research indicates that the extent of poverty has decreased substantially over the last decade (Nayab, Khan & Siddique, 2016).
A.3.	Citing four or more authors	<p><i>If the source has four or more authors, the abbreviation 'et al.' should be used after the first author's surname. This can also be used in the case of use three authors.</i></p> <ul style="list-style-type: none"> ▪ Acharya <i>et al.</i> (2006) used the OECD-DAC data on net official development assistance to measure aid proliferation. ▪ Civil service reform is crucial for improving the public sector capacity and performance in Pakistan (Haque, <i>et al.</i>, 2007).
A.4.	Citing more than one work by the same author(s) in same year	<ul style="list-style-type: none"> ▪ Policy network theory provides theoretical groundings to explore how actors interact and exchange resources to achieve broader network objectives (Khan, 2016a; Khan 2016b).
A.5.	Citing more than one work by the same author(s) in different years	<ul style="list-style-type: none"> ▪ The aid literature has rarely considered the policy process and the influence of complex networks on managing decisions in an aid recipient country (Khan, 2016; Khan 2017).
A.6.	Citing from book chapters written by different authors	<ul style="list-style-type: none"> ▪ Citing work from books which contain chapters, written by different authors, the author(s) of the chapter should be cited, not the editor of the book. Follow instructions given under 1.1 to 1.3.
A.7.	Secondary referencing	<p><i>Citing an author reference to another author's work, when the primary source is not available, the author of the primary source and the author of the work cited, both should be used.</i></p> <ul style="list-style-type: none"> ▪ Burnside and Dollar (1997) as cited by Khan (2016) foreign aid has a positive impact on growth in countries with good fiscal, monetary and trade policies.
A.8.	Citing a direct quotation or media file	<p><i>You should add double quotation marks (") and page number if you quote directly from a published work, paraphrase specific ideas or explanations, or use a media file in your own</i></p>

		<p><i>work such as image, illustration, diagram, table, photograph or figure from a source.</i></p> <ul style="list-style-type: none"> ▪ Mavrotas (2010, p. 4) states “In the early 1990s, following the collapse of the Soviet Union and the end of the Cold War, many observers predicted an end of history for aid.” ▪ “In the early 1990s, following the collapse of the Soviet Union and the end of the Cold War, many observers predicted an end of history for aid” (Mavrotas, 2010, p. 4). ▪ A low tax-to-GDP in Pakistan was also noted and highlighted by the International Development Committee (IDC) of the House of Commons in their Tenth Report of Session 2012-13: “If the Pakistan Government is unwilling to take action to increase its revenues and improve services for its people, it cannot expect the British people to do so in the long run.” (p. 43) ▪ Figure illustrating Pakistan GDP growth in a historic perspective (Khan, 2015, p.41). <p><i>NOTE: when citing a single page, use ‘p.’ For a range of pages, use ‘pp’, for example: ‘p.7’ or ‘pp.20-29.’ If the page numbers are in Roman numerals, do not include ‘p.’, for example: (Asim, 1998, iv).</i></p>
A.9.	Citing from works with no author mentioned	<p><i>To cite a piece of work which does not have an obvious author, mostly happens in the case of government policy and/or other official documents, you should use a ‘corporate’ author (name of the organisation) or use ‘Anon’ for anonymous author.</i></p> <ul style="list-style-type: none"> ▪ In Pakistan the tax-to-GDP ratio is very low: it varied between 8.5 and 9.5 percent during 2008-2009 to 2013-2014 (Economic Survey of Pakistan, 2013-2014). ▪ A study by the World Bank (2012) notes that Pakistan’s tax-to-GDP ratio was one of the lowest globally, primarily due to an inefficient tax administration, complex and obsolete legislation, and a non-transparent tax system.

A.10.	Citing from an interview or personal communication, and website	<ul style="list-style-type: none"> ▪ In case of interview or personal communication recorded as part of your research, always use the 'surname' of the interviewee/respondent as the author. ▪ When citing material from the website, you should cite it like any other source: the author surname in brackets and the date (follow instructions given under 1.1 to 1.3). <p><i>NOTE: do not include the URL of the website in your citation!</i></p>
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V-B Managing Referencing Manually (Harvard Style)

References are usually listed at the end of your work or sometimes at the end of each section/chapter. A **reference list** is a list of citations used in the body of your work, while a **bibliography** list includes all the sources consulted to complete your research. A reference/bibliography list should be organised alphabetically by the surname of the author(s)/editor(s).

To develop a list of references, you need different bits of information about each work used (or read) in your research work. These bits of information are called 'bibliographic' information. For all types of references, you need to start with author(s)/ editor(s) name, date of publication, and title of the work used/consulted. Depending on the type of material, you will also need more information such as: journal title, journal issue and volume number, page numbers, report number, title of report or conference proceeding, book or conference title, book editor, publisher, place of publication, website address, date of access, etc.⁴⁸

The reference list must be inclusive showing all the reference materials listed alphabetically in one list, NOT in separate lists according to source type. If you have to reference more than one piece of work by the same author(s), arrange sources in date order, beginning with the most recently published work.

Example of a Reference List

ALTAF, S. W. 2011. *So Much Aid, So Little Development: Stories from Pakistan*. Baltimore: The Johns Hopkins University Press.

BESLEY, T. & PERSSON, T. 2009. The origins of state capacity: property rights, taxation, and politics. *American Economic Review*, 99(4), pp.1218-1244.

BESLEY, T. & PERSSON, T. 2010. State capacity, conflict, and development. *Econometrica, Econometric Society*, 78(1), pp.1-34.

GOP. 2013. *Pakistan Millennium Development Goals Report 2013*. Centre for Poverty

⁴⁸ More details available here: <https://library.leeds.ac.uk/skills-referencing-harvard> [Accessed on 10th July 2019]

Reduction and Social Policy Development, Planning Commission of Pakistan, Government of Pakistan: Islamabad. Available at: UNDP Pakistan <http://www.undp.org/content/pakistan/en/home/library/mdg/pakistan-mdgs-report-2013---summary/> [Accessed on 10th July 2019].

HUSSAIN, I. 2011. *Civil Service Reform in Pakistan: Capacity, Competence, Courage and Compassion*. Presented at the “International Conference on Growth”, Planning Commission, Islamabad, 13th July 2011.

Proper referencing is an important part of your research work. To develop a **reference list/bibliography**, you are required to adopt the following rules using Harvard Style:

B.1.	Book	<p><u>For edited book</u>: FAMILY NAME, INITIAL(S). (ed). Year. <i>Title</i>. Edition (only if not first edition). Place of publication: Publisher.</p> <ul style="list-style-type: none"> ▪ KICKERT, W. J. M., KLIJN, E.-H. & KOPPENJAN, J. F. M. (eds.). 1997. <i>Managing Complex Networks: Strategies for the public sector</i>. London: Sage. <p><u>For authored book</u>: FAMILY NAME, INITIAL(S) (of author). Year. <i>Title</i>. Edition (only if not first edition). Place of publication: Publisher.</p> <ul style="list-style-type: none"> ▪ FLICK, U. 2014. <i>An Introduction to Qualitative Research</i>. 3rd edition. London: Sage. <p><u>For online/e-book</u>: FAMILY NAME, INITIAL(S) (of author). Year. <i>Title</i>. Edition (only if not first edition). Place of publication: Publisher. Available at: URL [Accessed on date].</p> <ul style="list-style-type: none"> ▪ MOYO, D. 2010. <i>Dead Aid: Why aid is not working and how there is another way for Africa</i>. New York: Penguin Group. Available at: http://cms.medcol.mw/cms_uploaded_resources/4685_4.pdf [Accessed on 10th July 2019].
B.2.	Book chapter (<i>in an edited book</i>)	<p>FAMILY NAME, INITIAL(S). Year. Chapter title. <i>In</i>: FAMILY NAME, INITIAL(S). (eds.). <i>Title of book</i>. Place of publication: Publisher, pp. (page numbers).</p> <ul style="list-style-type: none"> ▪ KLIJN, E.-H. 2012. New public management and governance: A comparison. <i>In</i>: LEVI-FAUR, D. (ed.) <i>The Oxford Handbook of Governance</i>. Oxford: Oxford University Press.
B.3.	Journal Article (<i>one, two, more than two authors</i>)	<p><u>For one author</u>: FAMILY NAME, INITIAL(S). Year. Title of article. <i>Journal Title</i>, Volume(issue number), pp. (page numbers).</p>

		<ul style="list-style-type: none"> ▪ NAYAB, D. 2008. Demographic Dividend or Demographic Threat in Pakistan? <i>Pakistan Development Review</i>, 47(1), pp.1-26. <p><u>For two authors:</u> FAMILY NAME, INITIAL(S). & FAMILY NAME, INITIAL(S). Year. Title of article. <i>Journal Title</i>, Volume(issue number), pp. (page numbers).</p> <ul style="list-style-type: none"> ▪ KHAN, M. A. & AHMED, A. 2007. Foreign aid-blessing or curse: Evidence from Pakistan. <i>Pakistan Development Review</i>, 46(3), pp.215-240. <p><u>For more than two authors:</u> FAMILY NAME, INITIAL(S)., FAMILY NAME, INITIAL(S)., & FAMILY NAME, INITIAL(S). Year. Title of article. <i>Journal Title</i>, Volume(issue number), pp. (page numbers).</p> <ul style="list-style-type: none"> ▪ UL HAQUE, N., DIN, M., IDREES, K., MALIK, W. S., & KHAN, F.J. 2007. Perception survey of civil servants: A preliminary report. <i>Pakistan Development Review</i>. Volume 45(4), pp.1199-1227.
B.4.	Journal article (online)	<p><i>Follow rules given under 2.1., and add URL link and date of online access.</i></p> <ul style="list-style-type: none"> ▪ NAYAB, D. 2006. Demographic Dividend or Demographic Threat in Pakistan? <i>PIDE Working Paper Series</i>, 2006:10. Available at: http://www.pide.org.pk/ [Accessed on 10th July 2019].
B.5.	Conference paper	<p>FAMILY NAME, INITIAL(S). Year. Title of paper. <i>In: Title of conference proceedings</i>, date of conference, location of conference. Place of publication: Publisher, page number(s) <u>OR</u> URL (in case of online publication) [Access date].</p> <ul style="list-style-type: none"> ▪ KHAN, F. J. 2016. Aid Policy Network in Pakistan: An Actor-Network Analysis. <i>In: 2017 Australasian Aid Conference</i>, February 15-16, 2017, ANU, Canberra, Australia. Published online (Development Policy Centre, Crawford School of Public Policy). Available at: http://devpolicy.org/2017-Australasian-Aid-Conference/Papers/Faheem-Khan AidPolicyNetworkPakistan.pdf [Accessed on 10th July 2019].
B.6.	Conference presentation	<p>FAMILY NAME, INITIAL(S) (of the presenter). Year. <i>Title of the presentation</i>. Title of conference, date of conference, location of conference.</p> <ul style="list-style-type: none"> ▪ KHAN, F. J. 2007. <i>Achieving MDGs in Pakistan: Optimism and Reality</i>. International Conference on Governing for MDGs:

		Focus on Incentives, Ownership and Institutions, April 28th, 2007, the Marriott, Islamabad.
B.7.	Figure, Table, Illustration or Diagram	<i>A complete reference should direct the reader to the source such as book, report or website, from where the material was taken.</i>
B.8.	Government document or official correspondence	<p><i>To reference published (paper copies), follow instructions as book. For online (soft) copies, follow instructions as e-book. Use the Government department/committee/ organisation name as the author.</i></p> <ul style="list-style-type: none"> ▪ GOP. 2013. <i>Pakistan Millennium Development Goals Report 2013</i>. Centre for Poverty Reduction and Social Policy Development, Planning Commission of Pakistan, Government of Pakistan: Islamabad. ▪ GOP. 2017. <i>Revision of rates of daily allowances on official duty within the country</i>, 1st January 2018. Regulations Wing, Finance Division, Government of Pakistan: Islamabad. Available at: Ministry of Finance http://www.finance.gov.pk/circulars/circular_01012018.pdf [Accessed on 10th July 2019]. ▪ PBS. 2015. <i>Pakistan Statistical Year Book 2015</i>. Available at: Pakistan Bureau of Statistics http://www.pbs.gov.pk/content/pakistan-statistical-year-book-2015 [Accessed on 10th July 2019].
B.9.	Newspaper article (<i>paper and online</i>)	<p><u>For newspaper</u>: FAMILY NAME, INITIAL(S). Year. Title of article. <i>Newspaper title</i>. Date, page number(s).</p> <ul style="list-style-type: none"> ▪ HUSAIN, I. 2011. Parliament's role in economic governance. <i>The Express Tribune</i>. 5th December 2011, p.11. <p><u>For online/e-newspaper</u>: FAMILY NAME, INITIAL(S). Year. Title of article. <i>Newspaper title</i>. Date. Available at URL [Access date].</p> <ul style="list-style-type: none"> ▪ HUSAIN, I. 2011. Parliament's role in economic governance. <i>The Express Tribune</i>. 5th December 2011. Available at: https://tribune.com.pk/story/302112/parliaments-role-in-economic-governance/ [Accessed on 10th July 2019].
B.10.	Data (<i>Published and Online</i>)	<p><u>For online data source</u>: ORGANISATION ABBREVIATION. Year. <i>Title of data</i>. Online publisher/host name (database, repository). URL [Access date].</p> <ul style="list-style-type: none"> ▪ OECD. 2015. <i>Query Wizard for International Development Statistics</i>. OECD-QWIDS. http://stats.oecd.org/qwids/ [Accessed on 10th July 2019].

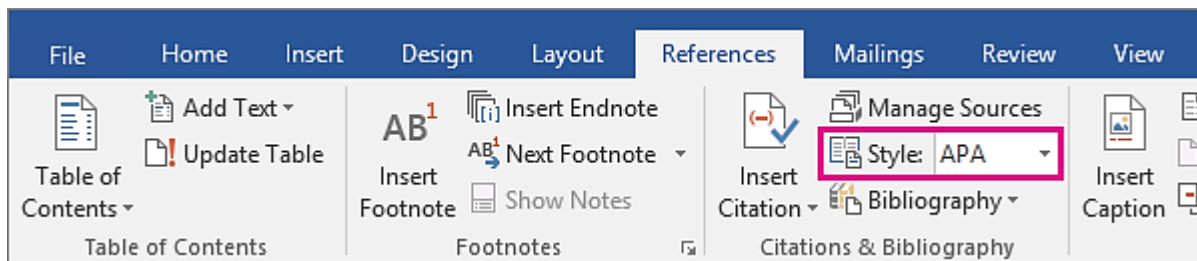
		<p><u>For published data source:</u> ORGANISATION ABBREVIATION. Year. <i>Title of data</i>. Publisher name: Location.</p> <ul style="list-style-type: none"> ▪ PBS. 2015. <i>Pakistan Social and Living Standards Measurement Survey (PSLM) 2013-14 National/Provincial</i>. Pakistan Bureau of Statistics: Islamabad. <p><i>NOTE, if there is NO identifiable author or organisation, use the title of the dataset.</i></p>
B.11.	Unpublished work	<p><u>For unpublished document:</u> FAMILY NAME, INITIAL(S). Year (if applicable). <i>Title</i>. Unpublished.</p> <ul style="list-style-type: none"> ▪ KHAN, F. J. & Nayab, D. [No date]. <i>Motivation and Performance of CSS Candidates in the Post-Devolution Period</i>. Unpublished.
B.12.	Website or Webpage (<i>Organisation</i>)	<p>ORGANISATION NAME/ABBREVIATION. Year (of access). <i>Title of page</i>. Available at URL {Access date}.</p> <ul style="list-style-type: none"> ▪ PAKISTAN COUNCIL OF RESEARCH IN WATER RESOURCES. 2018. <i>Water Management</i>. Available at http://pcrwr.gov.pk/research.php?view_watermng [Accessed 10th July 2019].

V-C Manage Citations & Bibliographies Digitally (using MS Word)

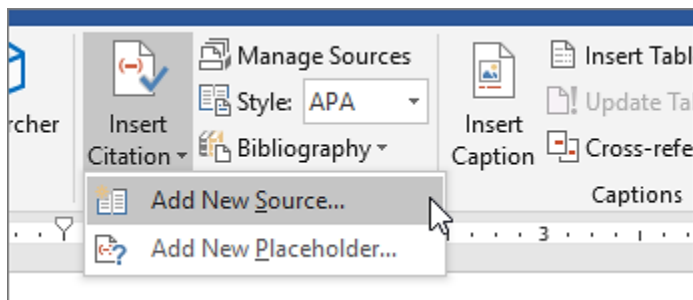
Managing sources using MS Word is a modern and convenient way to insert citations and produce references list/bibliography.⁴⁹ To manage your sources in MS Word, follow the instructions given below:⁵⁰

Add a Citation (using MS Word)

1. On the **References** tab, in the **Citations & Bibliography** group, click the arrow next to **Style**.



2. Click the (recommended) style that you want to use for the citation.⁵¹
3. Click at the end of the sentence (in text) that you want to cite.
4. Click **Insert Citation** and then select **Add New Source**.



5. In the **Create Source** box, type in the citation details, and then click **OK**. Remember to fill in complete details of the source by checking the box 'Show All Bibliography Fields'.

⁴⁹ Visit this link for more detailed instructions: https://support.office.com/en-us/article/apa-mla-chicago-%E2%80%93-automatically-format-bibliographies-405c207c-7070-42fa-91e7-eaf064b14dbb#ID0EAABAAA=Newer_versions [Accessed on 2nd August 2019]

⁵⁰ Instructions are available on MS Office Support website for both newer, older and web versions.

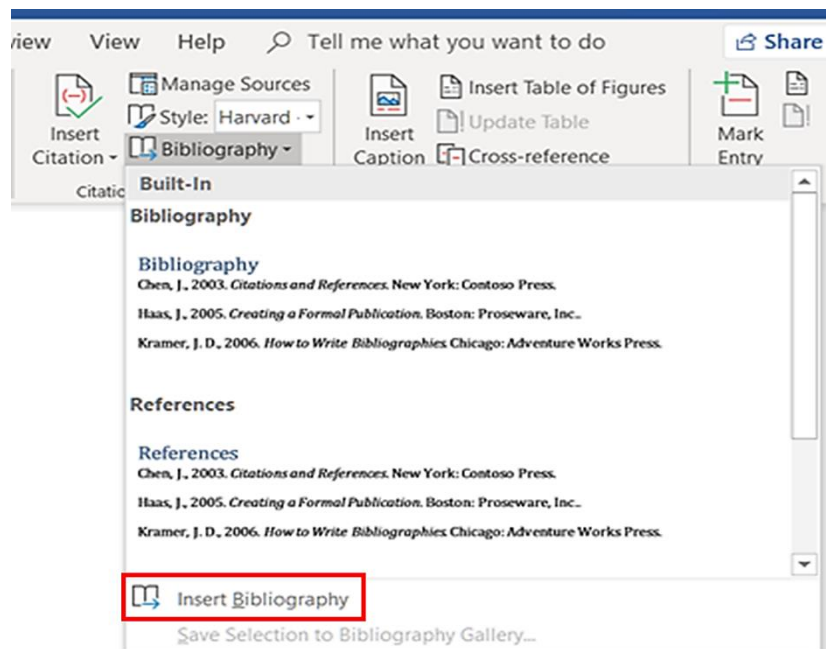
⁵¹ Available style options include APA, MLA, Chicago, Harvard, Turabian etc. Select the one which is recommended by your faculty!

When you have completed these steps, a citation is added to the list of available citations. The next time you need this reference, you don't have to insert all details of the source again, just click **Insert Citation** and select the citation from the list you want to use. Repeat this from step 1-5 for all new sources to manage your list of sources. You can always edit/update and/or delete your sources.

Add Bibliography (using MS Word)

With cited sources in your document, you can create a list of references/bibliography anytime. To automatically generate the Reference list/Bibliography using MS Word, do the following:

1. Click the place in the document where you want to insert a bibliography. Usually, it is at the end of a document.
2. On the **References** tab, in the **Citations & Bibliography** group, click **Bibliography** and choose a format or simply click **Insert Bibliography**.



ANNEX VI: AVOIDING PLAGIARISM

In research, **plagiarism** is a common (and often misunderstood) problem that is often the result of a lack of knowledge and skills. To understand ‘what is plagiarism’ and ‘how to avoid it in your research’, participants are strongly recommended to visit and explore the following websites:

- ***The Little Book of Plagiarism: What It Is and How to Avoid It***

<http://hec.gov.pk/english/services/faculty/Documents/Plagiarism/Little%20Book%20of%20Plagiarism.pdf> [Accessed on 2nd August 2019].

- ***Higher Education Plagiarism Policy***

<http://hec.gov.pk/english/services/faculty/Documents/Plagiarism/Plagiarism%20Policy.pdf> [Accessed on 2nd August 2019].

At the National School of Public Policy, participants are strongly recommended to **avoid plagiarism at all costs!** Plagiarism is an intellectual crime, and there are penalties and disciplinary action(s) for it – against the individual found guilty of the offence. It is therefore suggested that you must cite and reference the material properly in all research products such as Individual Research Paper, Current Issue Presentation (Write Up and Presentation), Case Study Research Report, and Simulation Exercise Report.

For any further guidance on the topic, please consult your Syndicate DS and/or DS (T&C).

ANNEX VII: ESSENTIALS OF A GOOD QUALITY RESEARCH

To qualify as good policy research, the research process must have certain standards and characteristics to be followed. Some characteristics of a good quality research are listed below:

<p>CLARITY</p>	<p>A research work must be free of ambiguities and should have clarity in all aspects. In simple words, the research problem should be well-formulated, and the purpose of study should be clear enough. It is one of the main essences of research, without which all efforts are useless.</p> <p>On the one hand, it should have clarity in SCOPE (such as defining the research problem and developing clear research questions) which clearly defines the direction and dimension of the research. On the other hand, it should have a well-thought METHODOLOGY (quantitative, qualitative or mixed methods research strategy) which denotes how to find best possible answers to the research questions. Without bringing in clarity on both aspects, a researcher cannot undertake a good quality research.</p>
<p>USEFULNESS</p>	<p>A good research should have some practical relevance (or linkage) to the existing debate and/or public policy problem. Identifying what exactly the research is about and what impact/contribution it could make are critical to its usefulness.</p> <p>Researchers are therefore suggested to clearly state the research problem and spell-out how in practice they expect their research work to contribute towards a problem-solving situation.</p>
<p>TRANSPARENCY</p>	<p>A good research should be open to scrutiny in a sense that it can be replicated and doable in other settings. Researchers are suggested to provide detailed account of how research was conducted such as:</p> <ul style="list-style-type: none"> ▪ details of primary and secondary data sources ▪ time and resources involved ▪ appraisal of strengths and weaknesses of the methodology ▪ research environment (location and duration) ▪ verifiable linkages with existing literature/debate ▪ acknowledging contribution of funding agencies and participants who took part in your research
<p>USE OF DATA/ INFORMATION</p>	<p>Collection and use of primary/secondary data and information are key inputs to research and analysis. Researchers are suggested to clearly cite sources and specify methods of data-collection and indicate limitations in the quality of available data. Secondary</p>

	sources such as official statistics and/or existing public policy debate may be used to build the research argument and formulate the scope.
PROBLEMATIZATION	<p>Generating Research Questions through Problematization</p> <p>There is always a vibrant debate within academic circles on the need to identify the optimal way of adding to and creating new literature within different fields. Problematization of current research literature is considered to be one of the most effective ways of constructing good research questions that lead to interesting and sometimes ground-breaking discoveries. This could be conceived as a two-stage process: (a) Gap Spotting and (b) Problematization of Theoretical Assumptions.</p> <p>In most of the cases gap-spotting is a predominant method used by the scholars to identify gaps in the existing research literature and contribute to fill those gaps. This way the gap-spotting adds to the present literature. Some such 'gaps' could be:</p> <ul style="list-style-type: none"> ▪ Poor relevance to policy; ▪ Lack of evidence or misrepresentation of available evidence or using old or unreliable data or poor visualisation of data; ▪ Partisanship (sample bias or evidence bias); ▪ Leaving out crucial variables with proven impacts; ▪ Lack of clear policy solutions; ▪ Popular secondary research in the field omitting to discuss key pieces of literature; ▪ Using ill-justified comparisons etc. <p>But it should be remembered that although gap-spotting is used as a significant method to add to the gaps in the literature, the search for high impact theories, the second stage of Problematization, challenging the underlying assumptions of the existing literature, needs to be given a high place in the search of robust research ideas, specially, in those areas of research where the analysis stems from some theoretical fountainhead. Challenging poor, misplaced, misunderstood, wrong, politicised [underlying] theoretical assumptions therefore adds a great value to a new research as [a] justification to undertake a new research, and [b] enables the new completed research to add to the existing body in a much more significant way as compared to the gap-spotting process.</p> <p>It is the process of Problematization of Theoretical Assumptions, which allows the researchers to take their thinking beyond the technique of gap-spotting and to generate high impact studies and</p>

theories. Problematization, in Foucault's words, allows for "an endeavour to know how and to what extent it might be possible to think different, than what is already known." The heart of this process is to challenge the underlying assumptions of the study through a dialectical interrogation of the views of others as well as one's own familiar position and domain of literature which ultimately gives birth to novel research questions and influential theories.

The process becomes easier if we relate our research to the particular type of assumptions in existing theories. It could be a particular school of thought (referred to as in-house assumptions); assumptions based on root/common metaphor, i.e. the broader images of a particular subject matter; shared ontological/epistemological methodological assumptions within the field; ideological assumptions or beliefs which underpin several schools of thought; field assumptions, which are subject-specific assumptions shared across various schools of thought. A usual strategy for problematization of theoretical assumptions would have some of the following methodological principles:

1. Identifying a specific 'domain of literature' that has to be questioned. Here it is important to consider the broader boundaries of the domain under question and the texts and works usually quoted.
2. Identifying and articulating the 'assumptions/assertions/explanatory theories/ popular hypotheses' that are to be questioned within this domain.
3. Evaluating chosen assumptions. It goes without saying that these assumptions should be worthy of being challenged.
4. Identifying alternative assumptions: alternative modes of assumptions that may explain the basis of existing literature within a domain can help in identifying the already existing assumptions and vice-versa.
5. Evaluating the alternative assumption grounds: Normally, they should not be in the category of 'obvious' where it agrees to all or most of the work already extant, nor 'absurd' where it rejects all that is said about a subject. Interesting new assumptions are more often than not an amalgam of previously held beliefs and new ones.

NOTE: This sub-section uses many ideas from Alvesson and Sandberg (2011): Generating Research Questions through Problematization.

RESEARCH ETHICS

To suggest that the goal of research is the production and dissemination of knowledge is not to argue that this goal should be pursued and achieved at all costs. There are ethical issues surrounding social research. Researchers are suggested to give high priority to research ethics and every attempt should be made during the research process to be sensitive towards wider ethical concerns.

Principles of research ethics ask that researchers should avoid harming participants involved in the research process by treating all equally and respecting and taking into account their values and decisions (Flick, 2009). Following ethical considerations must be kept in mind during research process:

- **HONESTY:** Honestly report data, results, methods and procedures, and publication status. Do not fabricate, falsify, or misrepresent data.
- **OBJECTIVITY:** Strive to avoid bias in research design, data analysis, data interpretation, peer review, personnel decisions, and other aspects of research.
- **CAREFULNESS:** Avoid careless errors and negligence; carefully and critically examine your own work and the work of your peers. Keep good records of research activities.
- **OPENNESS:** Share data, results, ideas, tools, resources. Be open to criticism, feedback and new ideas.
- **RESPECT FOR INTELLECTUAL PROPERTY:** Honour copyrights and other forms of intellectual property. Do not use unpublished data, methods, or results without permission. Give credit (cite the source) where credit is due. Never plagiarise!
- **RESPONSIBLE PUBLICATION:** Publish in order to advance research and scholarship, not to advance just your own career. Avoid wasteful and duplicative publication.
- **HUMAN SUBJECTS PROTECTION:** When conducting research on human subjects, minimise harms and risks and maximise benefits; respect human dignity, privacy, and autonomy.
- **RESPECT:** Respect the opinions of your colleagues and research participants, and treat them fairly. Be respectful towards their views knowing that those are subject to their own experiences and perceptions.
- **NON-DISCRIMINATION:** Avoid discrimination against colleagues or research participants on the basis of sex, race,

	<p>ethnicity, or other factors that are not related to their scientific competence and integrity.</p> <ul style="list-style-type: none"> ▪ LEGALITY: Know and obey relevant laws and institutional and governmental policies. Investigation/examination in research means exploring/analysing data and information to inform decision-making process. <p>In addition to the above, researchers are suggested to take every care to ensure respondents' confidentiality and anonymity of individuals and their institutional affiliations. CONFIDENTIALITY is an active attempt to remove from the research records any elements that might indicate the subject's identities, while ANONYMITY means that the subjects remain nameless. In the former case, protect confidential communications, such as personnel records, government/military secrets, and official (classified) records.</p> <p>Care should be taken in the drafting and editing of research findings to avoid identifying respondents through their professional role and/or viewpoints. This means, no use of names and designations of individuals, and not mentioning the name of their organisations in the final IRP. This will enable researchers to get officials (respondents) take part in research process without any hesitation and share information openly and honestly.</p> <p><i>NOTE: As part of the requirement, participants may be asked to list the name/designation/organisation of respondents who took part in research activities such as CSR and Simulation Exercise.</i></p>
<p>CONCLUSION & POLICY RECOMMENDATIONS</p>	<p>A good research must implicate the key messages (<i>what went wrong, why and how</i>) in the 'conclusion' section and articulate 'policy recommendations' (<i>what should be done and how</i>) in a way that do not require too much further interpretation. These should be expressed in a rather simpler language and related to the audience's known concerns. Policy recommendations should not be a wish-list, rather actionable steps that should also highlight the implications.</p>
<p>TRUSTWORTHINESS</p>	<p>The concept of <i>trustworthiness</i> in policy research (compared with the traditional concepts of validity, reliability and generalisability in quantitative research) is made up of four criteria:</p> <ul style="list-style-type: none"> ▪ CREDIBILITY (<i>Validity in quantitative research</i>) <p>Credibility/validity means truth: interpreted as 'the extent to which an account accurately represents the social phenomena to which it refers' (Silverman, 2000). Researchers are suggested to increase the validity of their research by adopting a number of specific techniques: for instance, data triangulation and respondents' validation.</p>

	<p><i>Triangulation</i> entails use of more than one method or source of data in the study of a social phenomenon so that findings may be cross-checked (Bryman, 2012). <i>Respondents' validation</i> is a process whereby a researcher provides the people on whom he or she has conducted research with an account of his or her findings and request feedback on that account (Bryman, 2012). Silverman (2005) suggests that good research goes back to subjects with the preliminary results and refines the findings in the light of the subjects' reactions.</p> <ul style="list-style-type: none"> ▪ DEPENDABILITY (<i>Reliability in quantitative research</i>) <p>Dependability involves accuracy of the methods and techniques used in the research process. It is generally understood to concern the replicability of research findings and whether or not they would be replicated if another study, using the same or similar methods, was undertaken (Ritchie and Lewis, 2003). This entails ensuring that complete records are kept of all phases of the research process – problem formulation, selection of research participants, fieldwork notes, interview transcripts, data analysis decisions, and so on – in an accessible manner.</p> <ul style="list-style-type: none"> ▪ CONFIRMABILITY (<i>or Objectivity</i>) <p><i>Confirmability</i> is the degree of neutrality in the research findings. It is about the researcher acting in good faith and not distorting the research or manipulating the results by personal values or theoretical learnings. It refers to the level of confidence that the research study's findings are based on the participants' narratives and words rather than potential researcher biases.</p> <ul style="list-style-type: none"> ▪ TRANSFERABILITY (<i>Generalisation in quantitative research</i>) <p>Transferability refers to the evidence that the research findings could be applicable to other (similar) contexts, situations, times, and populations. Although generalisation cannot be guaranteed in qualitative research, however, it can be increased by purposive sampling guided by time and resources. Flick (2009) states that the generalisability of the results is often closely linked to the way the sampling is done in qualitative research.</p>
<p>HOW TO USE YOUR RESEARCH SUPERVISOR</p>	<p>It depends on the habits of both, you and your supervisor. It is suggested that you should explore this arrangement in the very beginning. Discuss engagement strategy and decide how frequently you would meet. Some supervisors are easily accessible in their office for a quick chat, while others prefer scheduled meetings. It also depends whether you like to ask multiple vague questions and annoy your supervisor with more frequent visits or send some working draft in advance and seek guidance on specific sections of your</p>

	<p>research. Following are some tips which may help you to have effective interaction with your research supervisor:</p> <ul style="list-style-type: none"> ▪ Study on your own and explore the literature/existing debate on the topic and don't exclusively rely on your supervisor to help you identify key studies. ▪ Set and meet the deadlines. Setting small targets and meeting draft submission deadlines are always helpful to achieve the overall research goal. ▪ Make a habit to take notes during your interaction with supervisor. ▪ Manage time and resources; both are limited in nature and cannot be wasted. ▪ Not every interaction would be fruitful. Sometimes, you may come out of the meeting with a dozen more questions and may find yourself lost in a jungle. Remember, anxiety and muddling are quite common. Here, your strategy should be to work and meet smaller targets and bounce back with a clearer plan.
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For questions and suggestions, please contact:

DR FAHEEM JEHangIR KHAN

Directing Staff (Research),

Senior Management Wing,

National Institute of Management, Islamabad.

Email: nimds.fjk@gmail.com & faheem.jehangir@gmail.com

Tel: 051-9255680