**Unit-5 Research in Social Research**

**# Concept of Research in social science**

**Background**

Ample of changes that humankind went throughout the history, are the result of rigorous investigation of social life done through certain scientific procedure and methods. Series of progress, development, change and new innovation all have been possible by the scientific study. What is apparent is not reality until the reality is tested and the relations are justified by certain logical mechanism. Certain phenomena takes place due to the co-relation of different variables involved in the phenomena in which one is the cause another is the effect. Thus the key task of any scientific inquiry is to reveal the casual relationship between these variables causing social phenomena. Modern technological society is an outcome of research investigation done by the use of appropriate scientific knowledge by revealing the casual interplay between the given phenomena. Research reveals the reality hidden in the physical & social world. It reveals the underlying principle or laws of social phenomena, identifies and tests the influential factor involved in the occurrence of social reality. Every scientific research starts with curiosity or the mind set to asking questions. It starts with doubt. Doubt is regarded well than being over confident however logical skepticism (skepticism means to have meaningful/logical doubt) is essential in any research. Logical and relevant research questions are crucial to be raised in order to attain their probable answers. Researcher requires scientific investigation, logical mindset, analytical thought process, hypothetical and logical generalizability. So then, what research as such is if it has its greater significance in knowing the social reality.

**What is Research in Social science?**

Research a word has cumulated organization of dual term i.e Re + Search which equals to the trend of seeking again what wasn't sought before or sought but not found relevant to the objective one has set relative to the time and context.

Research in social science is an organized & systematic process & procedure of scientific investigation done for the sake of obtaining new knowledge, test the existing knowledge or prior knowledge & test the hypothesis over future knowledge. It is scientific method of finding the reality of social phenomena for eg: Reason for the commitment of suicide, Low rate of technological development in developing society, impact of technological development in society, relationship between prevalent cultural values and technology transfer in third world country etc.

Research is a scientific process by which replication of prior findings (reproduction of something/some past knowledge), interpretation, examination, as well as generalization of the findings are done.

P.V Young says that, "Social research is the systematic method of discovering the new facts or verifying the old facts, their sequences, inter-relationship & casual explanation".

Social research may be defined as scientific undertaking by means of which logical & systematized techniques aims to:

-Discover new facts or verify & test old facts

-Analyze their sequence, inter-relationship & casual explanations which are derived within or theoretical frame of reference

-Develop new scientific tools, concept & theories which would facilitate reliable & valid study of human behavior.

Research, systematic & objective attempt which is used to study problem for the purpose of deriving general principles. The investigation has been guided by previously collected information & aims to add to the body of knowledge on the subject.

F.N Kerlinger is of the view that, scientific research is a systematic, controlled & empirical & critical investigation of hypothetical proposition about the presumed relation among phenomena.

Above view of Kerlinger can be interpreted as

It is systematic

The entire procedure of research is organized in such a way that every stages or process is ordered in a sequence.

It is controlled

The process and entire methodology are bounded by predetermined set of structure which guide researcher in certain direction without being wandered for the fixity in the course of study.

It is empirical

In scientific research task, subjective belief is checked by the sensed or field based experience which allows one for the test of the untested beliefs or unexamined hypothetical propositions. It seeks to attain primary data which it thinks are the genuine credible, reliable and valid one.

It is critical

Scientific knowledge isn't an ultimate truths to be proclaimed as maintained by religious belief system however it allows one the space to doubt, testify and falsify the prior findings with critical viewpoints. It allows for comparison of the established facts to the ideas that one will be going to establish in the future. It questions any self-proclaimed absolute knowledge.

**Why Research?**

Besides doing research, it has so many reasons inherent. Reason might be

-To be familiar with new social phenomena, determination of casual (cause-effect) relationship of the given phenomena

-To identify and testing of relevant variables and determining their co-relation to each other.

-To draw out conclusion, generalization of findings, development of theory and novel concepts for the future reference

-To identify the key problems and solution

-To formulate hypothesis, test of the hypothesis, test, justify or falsify the findings or knowledge existed so far.

-To strengthen one's logical ability to find out the laws, principles and realities of the social phenomena.

-To attain an information & knowledge required for the development organization in order to implement development project and also for the academic purposes.

# Techniques & Tools in Research

Techniques & Tools are significant aspects in research process. Techniques are the major ways of doing research and tools are the instrument that ease in the process of data collection more specifically. There are varieties of techniques & tools used in both qualitative and quantitative research. They are shortly discussed below:

* **Interview**

Interview is a direct interaction between questions and answer pertaining to the objective of research or research problem. Assuming it is as an means to interaction between interviewer and respondents T.L Baker opines that, Interview is a piece of social interaction with one person asking another a number of questions and the other person giving answer.

In the similar tone prominent scholar to social research Kerlinger states that, "The Interview is a face to face interpersonal role, situation in which one person the interviewer asks a question, interview with respondent; questions are designed to obtain the answers pertinent to research problem". In the course of interviewing with the respondents, interviewer is not supposed to ask his/her personal & confidential questions which are irrelevant and have nothing to do with his research problem. Questions must be precise, clear, objective oriented, non-ambiguous and not repetitive.

* Rationale of Interview

-To collect accurate & credible information by establishing relation with informants

-To gather and understand qualitative data or information

-To reveal an unrevealed truths

-To Test the need, ability, mental process of the respondents that represent the psychology of the entire universe.

-To facilitate in the process of developing & testing of hypothesis, analysis of data & theory.

* **Major types of interview**

**#**Classification based on number of informants

1. Personal interview

It is interpersonal and interview with single respondent. It is mainly taken in the course of job interview, taking confidential information for eg: police interacting with the victim etc. There may be risk of being one-sided and prejudice in this kind of interview.

1. Group Interview

This is kind of interview in which responses are taken from the group of people over the problem being studied. The members may cover 20 to 25 or 5 to 6 as per the need and objective of the research. Group ideas can be shared in this kind of interview. It allows information about group problem to be triangulated or cross-checked through collective endeavor. Chances of revelation of problem and solution can be made in this technique of research.

#Classification based on methodology

1. Unstructured Interview

Unstructured interviews are more flexible in nature where informant's response are made in such a way that they could give their response as per their will. In this kind of interview researcher have no pre-determined set of structure of question rather he/s goes to the field, understands the ground reality and then frame the questions naturally or spontaneously in the natural setting. This kind of technique is usually relevant in life history of the individual or the institutions.

1. Structural interview

In this kind of interview researcher pre-determines or prepares the outlines what he going to ask to his respondents.

1. Key-Informant Interview

It is kind of interview in which the information is taken from one who has in depth knowledge in particular issue for eg: Peasants group, Peasants organization are the key informants who have in-depth knowledge regarding agricultural issues.

# Basic stages/process of interview

1. Research design
2. Research question- interview schedule, guidelines
3. Time duration of interview
4. Manpower-Determination of interviewer and interviewee
5. Rapport building-relation maintenance with the interviewee
6. Introduction-(of interviewer and interviewee and about the research topic & its objectives)
7. Conducting interview
8. Recording
9. Closing by acknowledging the informants all related source of information

* **Observation**

Observation is defined as a systematic viewing of specified phenomena in its proper natural setting which provides exact picture of a research issue for eg: If someone would like to conduct a research on hostel students of BCA level & their behavior in DWIT, then researcher has to stay in a hotel for the time being as student then only he can reveal the exact reality of hostel life. He has to intensively observe through his sight in a natural setting. It is deliberate, direct, empirical and minute study of the phenomena through sensed experience especially through sight experience. Information it assumes are precise since it gathers them explicitly (directly) from field whereby casual relation of the phenomena can be obtained exactly. It is useful in the collection of primary data from the natural world. Content of observation which is required to be observed are pre-determined. Observation literally is not merely observation or looking at something but it is a scientific looking over the phenomena in critical and logical fashion.

According to P.V Young "Observation is deliberate & systematic study through the eyes of the spontaneous occurrence at the time they occur." He means to say that, observation is something deliberately looked at that takes place spontaneously in natural setting.

C.A Moser says, "In the strict sense observation implies the use of the eyes rather than of the ears & the voice".

* Types of observation

1. Participant observation

This is the type of observation in which researcher deliberately take part in existing social phenomena. While participating in the process he/s becomes like the intimate member of the community. While observing in such community he/s should have known socio-cultural context of the community (their culture, value system, institutional pattern etc. One should be value free and should not be guided by personal prejudices in the course of observation. He should objectively observe the phenomena being detached from his subjective interpretations. This kinds of observation is more relevant for anthropological studies for which it recommend the time duration of 12 months to be spent in the field as an intimate member of the community. He/s is required to adjust or accommodate with the kind of cultural values of the community. Malinowski a renowned anthropologist had used this technique while doing his qualitative research in Trobriand islanders for 32 months.

1. Non-participant observation

In this kind of observation observer conceals his presence of identity to the population being observed. Observer don't let the community people that they are being studied. This kind of observation is done in order to get rid of the artificial behavior that may prevail during observation, obtain secret information and collect data without being manipulated or influenced by someone eg: observation on why women are involved in prostitution. Here observer is far from his identity to others. This research allows for the natural flow of the information getting likely to be flown during the course of study. Thus the participants don’t tend to manipulate or control the natural flow of data.

The major demerits of this type of observation are that, it is more time consuming, costly, skeptical (doubtful) by the community, chances of an attainment of surficial data, problem in the credibility of information an so on.

1. Quasi-participant observation

This is kind of observation in which is semi-participative in nature where sometime observer participate in the setting and sometime don't. It depends upon the relative condition and need of the investigation.

1. Mass observation

Whenever a single issue or phenomena has to be observed by using multiple scholars from different walks of life from different perspectives, then mass observation is recommended. eg: gender discrimination in family being observed by different scholars from different walks of life such as historian, psychologists, sociologists and so on. This observation allows a same phenomenon that will be studied from multiple perspectives at single point of time. It is more costly and requires more manpower to conduct.

1. Structured observation

In this kind of observation, both researcher as well as content of phenomena required to be observed are controlled. Researchers are structured with pre-determined outline of observation, method, techniques, tools, time determination for the study of phenomena, ways of building rapport with the data source (informants) etc. It helps reducing irrelevant & unnecessary information that may kill time, source and cost. It helps to find out intensive information of the topic being studied. It allows for the study of single aspect & determination of single way of observation.

1. Unstructured observation

This kind of observation is useful while determining major or important aspects to be observed by observing general areas of observation. This is an observation of every phenomena whereby one determines which aspects are important to observe or worth observable. It is unstructured doesn't mean that it is not pre-planned rather it is planned without being controlled by the researcher over the content of the phenomena. It is thus flexible and open than structured observation where observers study extensively over the overall aspects of the phenomena. Here study isn't made limited rather flexible in which study is done as per the free will of the observer. He is free to choose the social context of the study area which may also lead to have chances of prejudices and personal bias of data accumulation. It also leads to the observer being guided by emotional rather than rational judgement of the study procedure for eg: which, what, how to observe becomes ambigious.

* **Focus Group Discussion (FGD)**

FGD research technique, is also one of the important qualitative method of data collection. It is popular form of data collection techniques used in social science research in which there is direct interaction between interviewer and group of participants (respondents). It is also called focus group interview. Here group of people are asked about their perspectives, opinions, beliefs, attitude & ideas over research issue or topic researcher has raised. Participants are free to have interaction with each other in group. It is as kind of research done with defined group for eg: group of user of community forestry, teacher's group, mother's group, student's group etc. In FGD relating to group of users of community forestry, different age, sex, occupation, who are associated with that particular forestry are selected for cross-sectional information. This avails for the collection of multi-dimensional ideas from multiple respondents regarding the common issues being studied.

This is kind of informal discussion held mostly in public spheres such as Tea stall, temples, schools compounds, public spots and so on. Information collected in a single place manages time, labor and cost and eases in cross-interaction among the respondents. Ideal size for the conduction of FGD is 5 to 11 or above as per the need and objectives of the research.

In this discussion researcher works as a facilitator who facilitates the discussion with group of participants. He has to give major significance to the views of the participants rather than only his queries. He is thus required to be good listeners rather than only be a dominant speaker. He/s should motivate other to speak. This techniques is not about filling out of the questionnaire rather informal discussion with the defined group. It is participatory, qualitative, topic oriented, investigation of the subjective ideas of the members being studied. FGD is done with the relevant members who are identical in characteristics so that no one has to feel inferior to each other. This technique is relevant for any kind of project work by directly taking recommendation from the participants. It is efficient, participatory, inclusive and extensive technique of data collection.

The main difficulties connected with FGD is its inability in taking personal information from the respondents since it is a collective study. Likewise, consent taking regarding the site selection for the discussion because all may not be convenient with the site that has been selected for the discussion. Likewise it may be difficult for the researcher for him to manage entire information systematically from the entire group of participant and also difficult to take intensive knowledge as like as personal interview. Researcher is required to have

Major stages of Focus Group Discussion

Introduction -introduction of the self (interviewer) and of the participants, introduction of about the rationale/objective of the study to the participants

Discussion -should be sufficient, productive, inclusive, objective oriented

Seeking consent conclusively and wrapping up the discussion ultimately with acknowledgement of the participants and take questions if participants ultimately have to ask with researcher.

**#Qualitative, Quantitative & Mixed-Methods in Social Research**

Qualitative Method

Qualitative research method is one of the crucial research method used in social science. This kinds of research method simply aims to examine or find out answer regarding the question why and how for eg: How technological barrier of our society could be overcome? Why should computer professional be accountable towards society? What are the ways to transfer technology in traditional society? Answers given by the respondents have nature to be written in the form of paragraph, summarized narration,, textual presentation and descriptive accounts. Thus this method simply incorporates an open-ended or subjective types of questions where respondents are flexible to give their open answers rather than closed-ended or objectives questions. It is more flexible where informants are open/free to express the ideas & knowledge te way they would like to express. This method presents more narrative, descriptive, interpretative, subjective account rather than mathematical or statistical data assigned with the numerical values for the given phenomena, variables or the subject matter being studied.

This method is stemmed from bottom-up approach (from the perspective of people not researcher) than top-down (from the perspective of researcher not people) because here the responses are taken from the sole perspectives of people than researcher. Pre-determined hypothesis are not tested here rather hypothesis are developed only by taking ideas from the people. Method which is more popular or relevant in the discipline of anthropology, psychology etc. follows the narration of human wisdom, textuality, dialogic understanding. Researcher have opportunity to go for probing (probing means-attempt to reveal deeper understanding or follow-up questions are posed in order to extract intensive information over the topic being studied eg: If you say economy is major barrier to technology transfer why not other factors like polity, culture, religion, geography etc.? Interpretation and analysis of data depend on how researcher has logically understood the phenomena or response given by respondents. Thus interpretation & analysis is more subjective. Here interviewer requires to have special skills and deeper knowledge over the topic. Sample size for this kind of method is limited compared to quantitative method because the method and process here is lengthy which may take much time asking questions and taking answers. Answers/ responses are less likely to be replicated. Information is sought from non-statistical point of view which studies human though process & world view regarding the topic being studied such as his/her experience, thought, feeling, love, hate, dedication, nationality, sociability, belongingness, anger, prejudices, contempt etc. It asserts on cumulative body of knowledge, use inductive method (particular to general). It is done for the sake of exploration of new ideas and development of hypothesis rather than pre-testing an established hypothesis.

Hardware this method applies may be tape recorder, projection device (projector) audio/video recorder, picture etc. Some examples of tools & techniques used in this method are Focus group discussion (FGD), Observation, case study, content analysis etc.

**Why Qualitative?**

-In depth understanding of problem, context of the research problem, relation of subject of study to the socio-cultural background

-To develop idea for behavioral research

-To identify cognitive system (mental process or psychology of the people over the topic)

-To understand subjective reality (personal attitude, opinions of the people)

-To understand background of the event relating to the history and the present

-To understand symbolic meaning and casual relationship between the variables of the phenomena

-To understand cross-cutting issues (know multi-dimensional factor of phenomena)

-To understand or give significance to the human plurality and human perspectives

-Construction of social reality (Induction to deduction)

-To allow for data transcribing, coding and interpretation

**#Quantitative Method**

Quantitative method is associated with an empirical investigation of observable phenomena (observable means human relation that can be observed and tested but not supernatural which can't be tested) done through statistical, mathematical along with computational techniques. Here as compared to qualitative questionaire, here questions are designed in numerical order with objective and multiple choice format. Questions are closed-ended in nature where respondents are bound to give answer on the basis of the given options rather than his/her subjective ideas. Questions comprise mainly of What, Where, When, Which, how etc. for eg:

Which one is the major barrier to technology transfer in Nepalese society? (a. economy b. polity c. education d. religion). How much land do you own? In this method interviewer may have fewer skills, has chances of limited probing. Sampling size this method covers is larger as compared to qualitative method. So it is inherent with the nature of larger scale of generalizability. This method rests on the ground of exactness, objectivity, mathematical & statistical calculations, numerical explanations, experimentation and precision of data. This method is more scientific, valid, reliable and concrete in which hypothesis is tested not formulated. In this kind of research method, the process of investigation begins with the referential basis of theoretical postulates (deduction to induction i.e study from generalized ideas to the particular phenomena, study based on certain theoretical assumptions than ideas from ground reality). Here generalization of the findings is done on the basis of theoretical perspective. This method is used in the discipline of economics, population, sociology, political science, history etc. It rests on the format of statistical organization of data it's classification, coding, tabulation, quantification as per which casual relation between the variables are attempted to be sought. So that, this format makes data more objective, concrete & lively. Use of statistical & mathematical such as mean, median, mode, standard deviation, percentage, ratio, proportion, chart, bar, graph, tables venn diagram, scaling, measurement etc are techniques of data presentation, interpretation and analysis. These techniques create no ambiguity in understanding and analyzing the data. It helps clearly demonstrating the casual relations of the variables. Survey, questionnaire, interview are some of the tool and techniques used in this method.

**# Mixed Method**

Qualitative methods might be used to understand the meaning of the numbers produced by quantitative methods while using quantitative methods, it is possible to give precise & testable expression to qualitative ideas. This combination of qualitative and quantitative data gathering is often referred to as mixed method research. Quantitative data may involve population composition of households, family structure, age, land distribution, income, education etc. These data are presented in different ways of frequency distribution such as percentage, diagram, tabulation however the data expressed in this quantified form don't speak or become lively until and unless they are made speak able by the help of qualitative expression such as description, narration, transcribing, interpretation, of the expressed quantified data are done by researcher himself. Thus, although these two methods are opposite to each other combination of these two make research complete and lively. Mixed method is a multi-method research in which both qualitative as well quantitative methods are combined together. It is pluralistic research approach in which research is conducted by integrating both quantitative methodology (eg: experiments, survey/survey questionnaire, statistical presentation & analysis of data, percentage, pie-chart, bar, graph, closed ended questionnaire, measurements, use of rating, scales) as well as qualitative methodology (qualitative tool, techniques, data presentation, data analysis etc eg: observation checklists, FGD, KII, qualitative analysis, words, texts, interpretation, narration etc)

Diversity of ideas can be gathered through diverse methods, tool, techniques, data collection, data source, data presentation, interpretation & analysis helps research become more inclusive and multi-dimensional. This method allows for the possibility of triangulation (means-the use of several means, methods, data source & researcher in order to examine the same phenomenon. This method allows the researcher become more holistic & side by side collaboration of qualitative & quantitative method. In this method, social issues are studied objectively (mathematical calculations) subjectively with poly-phonic & thick-descriptive based analysis. It makes research more reliable, trustworthy and convincing.

**# Difference between qualitative and quantitative methods in social science**

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| --- | --- | --- | --- |
| S.N | Factors/Characteristics | Qualitative Method | Quantitative Method |
|  | Questions | * Open-ended * Probing * why & how * flexible & subjective | * Close-ended * Limited Probing * What, when, where, which, how * Pre-determined, objective & structured |
|  | Expertise | Interviewer with special skills | Interviewer with fewer skills |
|  | Type of Analysis | Subjective, Interpretative, Narrative or descriptive | Statistical, Numerical, Quantitative |
|  | Hardware | Tape recorder, video recorder, projection device, Picture discussion device | Questionnaire, Computer printouts |
|  | Replicability | Low | High |
|  | Researcher Training | Psychology, Sociology, Consumer behavior, market research | Statistics, computer programming |
|  | Sample | Small-non-random/purposive | Large-random/non-purposive |
|  | Data collection | Researcher as primary instrument | Inanimate instruments i.e, scale, tests, survey, questionnaire, computer |
|  | Mode of analysis | Inductive (By researcher) | Deductive (Statistical Methods) |
|  | Findings | Comprehensive, holistic & multi-faceted | Precise, narrow, reductionist |
|  | Hypothesis | Exploration and development of hypothesis after field research | Test of hypothesis |
|  | Tool & Techniques | Interview, observation, FGD, content analysis, case study | Survey questionnaire |
|  | Data presentation | Descriptive, Interpretative, Narrative, non-statistical | Numerical explanation, statistical, tabulated, classification, diagrammatic, graphical, scaling, measurement, ratio/proportion, mean, median, mode, co-relation etc. |
|  | Relevant Genre | Anthropology, Psychology etc. | Population, Statistics etc. |

**# Research Proposal and its basic components**

**Research Proposal**

Simply research proposal is an overall directive or guideline that leads through certain ways of research process. It is a systematic guidelines & procedure, process and organized plan of the research project intended to be conducted. It is an overall plan, design, outline of the entire research procedure, its outline of technical & sequential series of research procedure, an way forward of any scientific inquiry. It is an overall plan of theoretical, technical, financial, intellectual (concerned with use of expertise of various discipline ie. Statistician, sociologist, data analyst, field researcher (enumerator) and overall management of the procedure. It is a fundamental ways of investigation and management and organization of research process. It varies as per the research design, objective, nature or method of research. It should incorporate & explain the details regarding the major components of research. Research proposal is of two type i.e i. project research proposal prepared for the implementation of the project activities ii. Academic research proposal which is related to the preparation of the academic dissertation for the institution.

Key question of research proposal involves the following:

1. What do you plan to accomplish? -goal of the research
2. Why do you want to do it? -key objectives, general & specific
3. How are you going to do it? -use of tool, techniques, methods or entire methodology of research

**Why Proposal?**

-To signify the importance of research and justify its meaning of conduction.

-To inform the concerned stakeholders regarding the topic being studied

-To plan the sequence of research in systematic order

-To make a criteria for an agreement with the one for whom it is being written.

-Guideline for the entire research process

* **Basic Components of Research Proposal**

Components of research proposal are the major elements that constitute an entire outline of research proposal. These elements clarify the sequential and factual meaning beside operation of the research task that one is to carry. Structure of any research proposal is composed as per the nature of topic. Basic components of research proposal are briefly described below.

1. Identification of research problem

This component simply introduces the topic or research issues being studied. In this component of research proposal, the concept, jargons (technical terminology eg: programming in computer application, assimilation in sociology, demand/supply in economics etc) are mentioned and described in precise and clear manner. Historical background or introductory background of the topic is briefly described. Problems are stated and possible way to resolve the stated problem is discussed. The topic over which research is going to be conducted is made related with the prior research, theories, concept and findings. Here the theoretical flaws are tried to be identified and gap between past research and proposed one is tried to be identified and narrowed down. It suggests for the correction of theoretical incompleteness with logical ways and remedies. This component should mention what contribution the proposed research can afford in developing new knowledge, concept, and theory and to what extent it can resolve sociological problem.

1. Rationale of the research

Every action has its result. Rationale of research implies the reasonable logic, rationality, significance, utility & scope (coverage, extent of representation) of the research being done. In order to highlight the significance /rationalization of research, one has to state the previous research gap which he claims to fulfill in the proposed research. Thus it is a logically justifying stage of his/her proposed research by pointing out past study gap and his plan to fulfill this gap by suggesting his own logics & ideas through new dimension.

1. Formulation of Research questions

Formulation of research question is a stage to problematize the research topic/issue. In this course research questions relating to the topic should be raised for eg: If the research topic is barriers to technology transfer in Nepalese society then the issues may be studied by the certain guiding research questions such as: 1. What are the key factor causing barrier to technology transfer? 2. What are the historical trend of technology transfer? 3. What are the impacts of not adopting technology in Nepal? (Economy, education, culture etc.) These particular questions lead to the further investigation of research.

1. Formulation of research objectives

General and specific sort of objectives are formulated. Goal of the proposed research has to be mentioned in this stage. Here objectives related with the key research questions have to be raised for eg: 1. To explore key barriers to technology transfer. 2. To know the historical trend of technology transfer. 3. To assess the impact of technology not being adopted in different sectors such as economy, education, culture etc.

1. Limitation of the research

Limitation of the research implies to what extent research procedure and methodologies (tool & techniques, sampling size and methods, research design etc) are to be used in the course of study for eg: One can't deploy many theories or more sample size, budget due to the limited time and resource constraints.

1. Literature review

It is one of the important component of research proposal which guides researcher to know more about the ideas of topic. It allows one to relate past studies with the study he is going to undertake. Literature review helps one to know about the background details of the topic, selection of right methods, tool/ techniques used in past research, questions raised in past. It helps determining theoretical, conceptual, ideational, technical and methodological gap of prior research with the proposed research. For this, secondary source such as books, article, documents, publications etc. Literature review is done in order to conceptualize, identify variables & its types and relation. It helps research bounded by the theoretical & conceptual framework which do not let go beyond this boundary.

1. Research Methodology

Research methodology has to clearly mention the sort of methodology to be used which involves several components such as sampling procedures & types, research design, data source, tool and techniques of data collection. As per the nature and objectives these components are determined.

Sampling design

Sampling is a process of selecting representative size of population from the whole universe by the use of relevant sampling method or techniques for eg: 40 to 60% from total population is commonly used as a representative figure. Before selecting right sampling size total number of the entire universe has to be determined first. There are generally two types of sampling i.e probability & non-probability sampling under which different forms of sampling methods are further categorized.

Probability sampling: It is a kind of sampling in which each items from the entire universe have equal chances of being selected. It is categorized as 1. Multi-stage sampling 2. Systematic sampling 3. Cluster sampling

Non-probability sampling: It is a kind of sampling in which each item has not equal chances of being selected. It is deliberate or purposive in nature in which researcher selects the informants by using his own wisdom & intuition. It is further categorized as 1. Purposive 2. Quota 3. Convenience 4. Accidental 5. Snow ball

1. Formulating hypothesis

Hypothesis implies a tentative generalization of the probable findings which is remained to be tested. It is an intellectual guesses or reasonable propositions remained to be tested.

1. Determination of research design

Research design is important part of research proposal in which one is expected to propose kind of design of the research he is going to follow. Research design is a blue-print of overall research task, whole process of design i.e design of types of research, methods, tool, design of the other technical aspects such as timing, budgeting, manpower, source of data (primary or secondary etc) It is overall guideline of the entire research project i.e selection of topic, formulation or research question, determination of tool & techniques, sampling procedure, calculation of time, budget, resources required, site selection it's rationality etc.

As per the nature of research issue one may deploy various kinds of design which can be of following:

1. Exploratory research design

Exploratory research design is done so as to explore some new or innovative ideas and facts over the topic being studied. Some of the exploratory questions may be:

Why most of the people intend to go for abroad studies? What is the major barrier to technology transfer in Nepalese society?

1. Descriptive research design

Descriptive research design is made in order to simply describe the phenomenon being studied. In this kind of design, neither old facts are tested as hypothesis nor it tends to explore the new insights. It just believes in describing the details in more narrative and interpretative form of the natural setting and study phenomena. It follows the questions regarding how & who? For eg: how did it happen? Who is involved in it? Description on how students performed holi in DWIT. It tends to elaborate the casual process of social phenomena based on given social context and time. This kind of design is relevant in the course of survey field research, content analysis, historical comparative research etc. Research proposal proposes the descriptive research design to be followed.

1. Experimental research design

Experimental research design is proposed in order to test the existing knowledge, ideas, principles or findings rather than exploring novel insights. Pre-occupied knowledge or established facts are experimented in the field. It aims to test the hypothesis, identify and relate the variables of the phenomena. It aims to study human relationship by making observation under the controlled situation. The hypothesis that the barrier to technology transfer in Nepal is superstition is tested in the field. Experimental research design has three major qualities i.e

-Independent & dependent variable

-Pre-test & post test

-Experimental group & control group

1. Longitudinal research design

In this kind of research design study is conducted in order to investigate the situation of group of people or units across multiple period of time. Here stability or changes in the features of the units are studied over time or within different periodic dimensions. It is appropriate in the study of social dynamism, social processes (assimilation, integration, accommodation etc) socio-cultural changes etc. for eg: study in the change in the mentality of giving technological education to the daughter, change in schooling pattern for son & daughter (private vs public) etc.

1. Cross-sectional design

It assumes that study should be taken at single point of time with different group of respondents rather than in series periodic dimensions. It is an observation of the varied population or different cohorts (groups) at the same point of time. Cross-sectional analysis allows for the comparison between the cohorts for eg: situation of gender equality in Indo-Aryan group & Tibeto-Burman group in Nepalese society, performance of BCA students in DWIT college & Times college etc.

Apart from these kind of research design, there are other kinds of research design such as historical, ex-post-facto research design which may be proposed by the researcher as per the need and objective and nature of his/her topic.

1. Tool and Methods of data collection

As per the nature of research issue and topic data collection tools and methods are to be proposed. For eg: observation, interview, questionnaire, case study, content analysis, Key Informant Interview, Focus group discussion etc are used in course of collecting data from primary source (field)

Secondary data are to be gathered from various secondary source such as: article, journal, reports etc.

1. Data, Presentation. Interpretation & Analysis

For this stage researcher should propose the ways data presentation, interpretation & analysis. Data has to be processed after they have been gathered from the field. One should propose whether the data will be interpreted, analyzed and presented in quantitative form such as pie-chart, graph, venn-diagram etc. or in qualitative manner such as logical deduction, elaborative account, narratives, summarized version and so on. On should spell out how to interpret and analyze the data.

1. Bibliography/References

Bibliography is a source from which information is extracted. Extraction of information and knowledge requires certain academic means i.e citation of the references taken from review of literature for eg:

Bista, D.B (1967), People of Nepal, Ratna Pustak Vandar. Citation of reference has to follow either MLA or APA format. Citation without reference is considered as intellectual theft called plagiarism. Research proposal has to cite the reference clearly reviewing the literature.

**#** **Research report writing & presentation**

Research report writing is a final stage of the research project. After completion of the proposed research task through series of steps, promises which had been made in the course of making proposal has to be fulfilled in the course of report writing and presentation. Research report is an oral and written presentation of entire research project written in past tense. The basic stages of report writing is similar with that of proposal writing however three major elements i.e summary of the findings, conclusion & generalization are to be included in report writing.

**#Main outlines of Report writing**

**# Part 1- Preliminary part**

1. Title page & Name of Researcher
2. Letter of recommendation
3. Approval Letter
4. Declaration
5. Acknowledgement
6. Abstract of the research
7. Table of contents
8. List of figures
9. Acronyms
10. Glossary

**# Part-2 Main body of the text (Report)**

1. Introduction/Statement of the problem
2. Rationale of the research (significance
3. Formulation of research questions
4. Formulation of objectives
5. Limitation of research
6. Literature of Review
7. Research Methodology
8. Data interpretation & Analysis
9. Summary, Conclusion & Generalization

-This part which is not included in proposal writing has to be mentioned in report writing. Summary of what was found in the course of research study has to be mentioned in this section. Likewise, the brief conclusive depiction of summary has to be given in order to hook the impression and clear understanding regarding the research objective to the people and concerned stakeholders. By studying every sampled units from the given universe one has to generalize the findings to the universe. Generalization means a process of representing the entire universe through appropriate sampling techniques regarding the findings of the research topic or issues studied. It is a process of making findings & sampled units identical to the universe.

1. Bibliograpghy/References

# **Software used in social research**

1. Statistical packages for social science (SPSS)
2. MS Word
3. MS excel
4. Power point
5. Search engine eg: google, wikipedia, encyclopedia etc

Please consult Internet for knowing about these softwares.