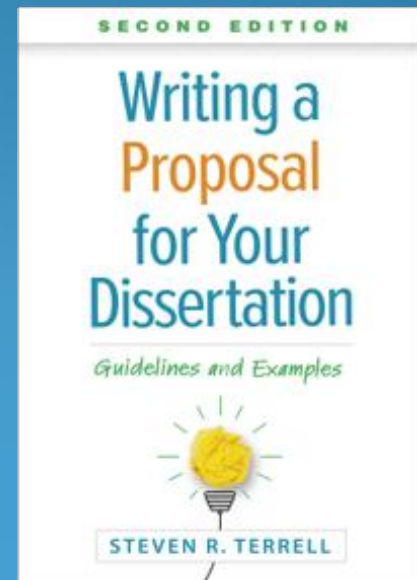


Writing a Successful Dissertation Proposal

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A Dissertation Proposal Generally Has Three Chapters

Chapter One - Introduction

1. Problem Statement with Background and Significance
2. Purpose Statement (the Central Purpose)
3. Research Questions
4. Hypotheses for Quantitative Studies
5. Definitions of Terms
6. Assumptions
7. Limitations / Delimitations
8. Conclusion

Chapter Two – Review of Literature

1. What is currently known about the problem area?
2. What research is being called for in a field.
3. What are the types of methodologies that have been used in these fields?

Chapter Three – Methodology

1. The research design.
2. Participants and sampling.
3. Instrumentation to be used to collect data.
4. Research procedures.
5. Plans for data analysis.
6. Ethical issues we may to deal with.
7. Summary.

Chapter One: The Introduction

If the truth be told, many students spend an inordinate amount of time searching for a research problem and some ultimately give up.

In short, their problem is finding a problem, but it shouldn't be. The world is full of opportunities for investigation; we just need to look around us and open our eyes and ears. Our experience, our classes, our professors and the literature can lead us.

Don't let finding the problem be the problem!

Finding a Good Research Problem

- Personal experience.
- Issues at your workplace or institution.
- By reading about a topic you are interested in.
- By attending professional conferences & speaking with experts in the field you are interested.
- By replicating the work of others in an attempt to better understand or apply the results of research they have conducted.



The research problem represents the specific issue, concern or controversy that we want to investigate and should meet six criteria:

1. The problem is interesting to the researcher.
2. The scope of the problem is manageable by the researcher.
3. The researcher is comfortable in terms of their knowledge, time and resources needed to investigate the problem.
4. The problem can be researched through the collection and analysis of data.
5. Investigating the problem has theoretical or practical significance.
6. It is ethical to investigate the problem.

Writing a Good Problem Statement

- Problem statements must be clear and concise.
- The problem statement must include all of the variables to be considered.
- The problem statement should not interject the bias of the researcher.

The Problem Statement as Part of Your Dissertation Proposal

- Background – tell the reader the genesis of the problem, relevant literature support, etc.
- The specific problem statement.
- Significance – tell the reader why investigating the problem is important.

Problem Statement Showing Background and Significance

Historically, the attrition rate for students from Ph.D. programs in the United States averages about 50% (Alderman, 2015). While a larger percentage of students finish the required coursework, the failure rate for students not completing their doctorate by the 6th year of their program increases to between 70% and 80% (Schneider, 2011). Leaving a doctoral program prior to graduation has a negative affect on the student, the faculty and university both financially and temporally (Smith-Jones, 2014).

Background: Historic attrition rates.

Problem: Attrition rates increase by 20% to 30% after six years.

Significance: Lost time and money.

The Purpose (i.e., the Central Purpose) Statement

The purpose statement tells the reader the overarching focus or goal of your study and should be included in both quantitative and qualitative research studies.

The purpose of this study is to help determine reasons why the doctoral student attrition rate grows larger after their 6th year in the program.

What is a research question?

1. A clear and focused question around which you center your research.
2. A research question is what you want to know about a topic.
3. A research question is a statement that identifies what is to be studied.
4. A research question is the methodological point of departure for scholarly research.

Why did you decide to leave the doctoral program after six years?

In short...

The research question points to what we want to investigate, evaluate, design or develop.

The methodology provides us with a plan to help us answer the research question.

The reliability, validity, usability and generalizability of our study depends on a close match between the research question and the methodology.

We don't want to get into "You start programming and I'll go see what the user wants" mode.

Developing A Hypothesis

1. The hypothesis is a statement expressing the researcher's beliefs about an event that has occurred or will occur.
2. A well-stated hypothesis has four requirements:
 - 1) It must provide a reasonable explanation for the event that has or will occur.
 - 2) It must be consistent with prior research or observations.
 - 3) It must be stated clearly and concisely.
 - 4) It must be testable via the collection and analysis of data.
3. Hypotheses are the natural extension of the ROL and are included in the Methodology section.

Types of Hypotheses

- Statistical (null) hypothesis:
 - *There will be no significant difference SAT scores between children who use technology and those that receive lectures*
- Research (alternate) hypothesis:
 - *Students receiving technology-based will score higher on the SAT than students receiving lecture-based instruction.*

Directional Hypotheses

A directional hypothesis contains a “greater than” or “less than” comparison:

- *Students sleeping less than eight hours per night will have lower levels of achievement than students getting eight or more hours of sleep.*
- *Students receiving graphical report cards will have higher levels of intrinsic motivation than students receiving traditional report cards.*

Non-directional Hypotheses

A non-directional hypothesis has an inferred “not equal” condition:

- *There will be a significant difference in motivational levels of students getting daily report cards and those getting monthly report cards.*
- *There will be a significant difference in productivity between programmers working in private offices and programmers working in cubicles.*

- Definitions of Terms: a list containing definitions of terms specific to the study and that may not be understood by the reader.

For the purpose of this study “doctoral student” is defined as a participant in an online doctoral program.

- Assumptions: characteristics of a study or dataset we assume to be true but are not tested.

It is assumed that all participants answered the questions honestly and to the best of their ability.

- Limitations: Constraints outside of the control of the researcher and inherent to the actual study that could affect the generalizability of the study’s results.

The results of this study are limited to students in a predominantly minority, low socioeconomic, inner-city school.

- Delimitations: limitations actively put into place by the researcher in order to control for factors that might affect the results, or to more specifically focus on the problem.

The study’s participants included female students in a predominantly minority, low socioeconomic, inner-city school.

Chapter Two - What is the Review of Literature?

1. A link between research that has already been conducted and the research you propose to conduct.
2. The systematic identification, analysis, evaluation, explanation and summary of the complete and current state of the literature in your field.
3. An overview of the current debates, concepts or issues in your field.
4. A preface to and rationale for engaging in new research.
5. A tool that allows you the option of modifying work or altering methods that lead to a new perspective.

What the Review of Literature Is Not

1. A stand-alone document. Much of what needs to be included in the ROL is needed prior to starting a study (e.g., to state a hypothesis or provide background and significance for the problem statement). There is very rarely a case where a proposed study is not related to prior work.
2. The result of one given approach; there is no right or wrong way to conduct an ROL.
3. A unilateral substantiation of your proposed research. You might find that your study has been conducted before; this could lead to replication, modification or the use of new data. I have never seen it lead to completely abandoning a project.

What is the Purpose of the Review of Literature?

1. The ROL provides a link between the current research and what is already known (the background); this allows for substantiation of your research (the significance) of the study.
2. Provides an historical background or theoretical framework of your research in terms of what is already known, prior findings, relevant theories and concepts.
3. It allows you to highlight flaws, gaps or opportunities presented in prior research.
4. In cases where you find your research has already been conducted, it helps you adjust your research to focus on a new perspective by replication, modification or use of different sets of data.
5. Allows for the identification of relevant terminology or definitions pertinent to your study.
6. Allows you to identify other methodologies, tools or measurement instruments that have been used to address your specific problem area.

Chapter Three - Methodology

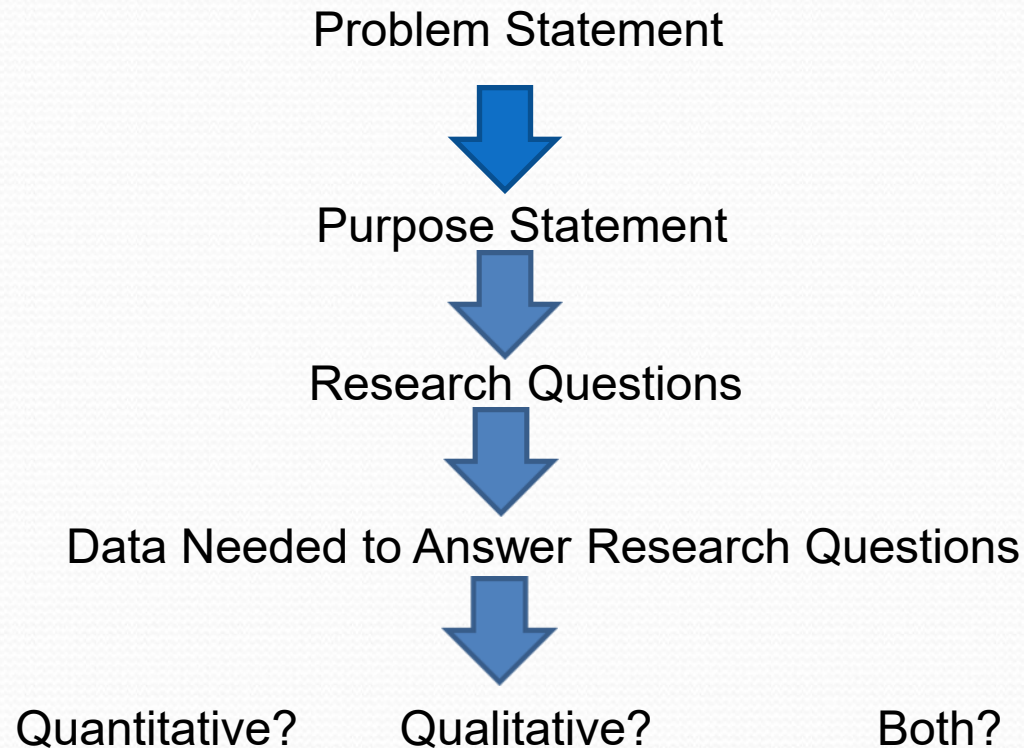
The Methodology continues the linear process started by the Statement of the Problem and going through the Review of literature.

The Methodology is your plan for conducting your research and should be so precise that it minimizes the chances of making errors in its execution. A high degree of precision also affords future researchers the ability to replicate your work.

There are many possible entries in the Methodology, many of which are only used in specific types of studies. We will cover the types of things that one might find in a typical research study; this depends, to a large part, on whether you are conducting a qualitative, quantitative study or problem-solving study.

1. The research design.
2. Participants and sampling.
3. Instrumentation to be used to collect data.
4. Materials and Apparatus
5. Plans for data analysis.
6. Ethical issues we may to deal with.
7. Summary.

The Path from the Problem Statement to the Methodology



Quantitative Research Designs

- Deductive by nature (tests a hypothesis based on a theory)
- Hypotheses and research procedures stated prior to starting the study
- Numeric data is collected and analyzed
- Cause and effect is examined
- Descriptive and inferential statistical procedures are use to test the hypotheses
- “We live in a stable and predictable world that we can measure, understand and generalize about” (Gay & Airasian, 2011)

Common Quantitative Approaches

- Survey Studies

- These studies are used to examine current status of something. Common types are cross-sectional and longitudinal.

- Relationship Studies

- These studies explain how events or things are related to one another. Common types are correlational studies and causal-comparative studies.

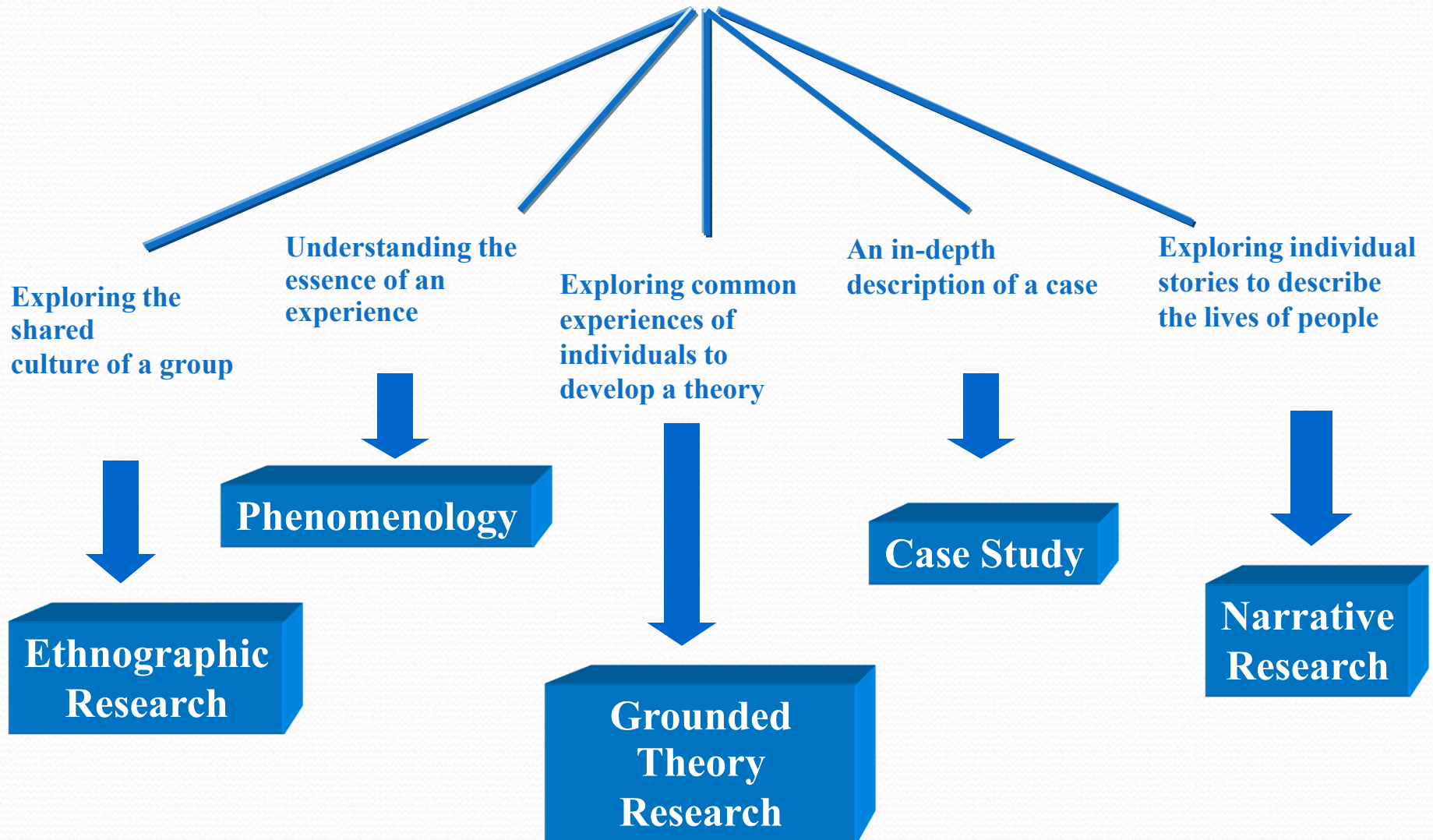
- Experimental research

- These studies are used to examine cause-and-effect and work by examining the effect of independent variables (i.e., the cause) on dependent variables (i.e., the effect). The three major types of experimental research are pre-experimental designs, quasi-experimental designs and true experimental designs.

Qualitative Research Designs

- Inductive by nature – moves from observations to theory
- Non-numeric narrative, interview, transcript and visual data
- “Relies on categorizing and organizing data into patterns to produce a descriptive, narrative hypothesis” (Gay & Airasian, 2011)
- “Meaning is situated in a particular perspective or context that is different for people and groups; therefore, the world has many meanings.” (Gay & Airasian, 2011)

Common Qualitative Designs and Uses



What is Ethnographic Research?

Qualitative research procedures for describing, analyzing, and interpreting a culture-sharing group's shared patterns of behavior, beliefs, and language that develops over time.

- Focus: Describing and interpreting the shared patterns or culture of the group.
- Type of problem: A need to better understand a given cultural group.
- Discipline background: Anthropology and sociology.
- Unit of analysis: Studying a group that shares the same theme.
- Data collection forms: Uses primarily observations and interviews but perhaps other sources during extended time in the field.
- Data analysis strategies: A description of the culture-sharing group; themes about the group.
- Written report: Describing how the culture-sharing group works.

What is Phenomenological Research?

A descriptive study of how individuals experience a phenomenon. This is the lived experience but can also include psychological constructs such as grief, anger or love. the descriptive study of how individuals experience a phenomenon

- Focus: Understanding the essence of the experience.
- Type of problem: Needing to describe the essence of the experience.
- Discipline background: Business, philosophy, psychology and education.
- Unit of analysis: One or several individuals who have shared the same experience.
- Data collection forms: Using primarily interviews with individuals although documents, observations, recordings and art may also be used.
- Data analysis strategies: Analyzing data for significant statements, meaning units, textural and structural descriptions, description of the “science”
- Written report: Describing the “essence” of the experience.

What is Grounded Theory Research?

Grounded theory research enables the development of a *theory* which offers an explanation about a problem experienced by your area of interest and how that problem is resolved or processed.

- Focus: developing a theory grounded in data from the field.
- Type of problem: best suited for investigating problems based on the views of the participants.
- Discipline background: grounded in sociology.
- Unit of analysis: studying a process, action or interaction involving many individuals.
- Data collection forms: primarily interviews with 20 to 60 individuals.
- Data analysis strategies: open coding, axial coding and selecting coding.
- Written report: generating a theory illustrated in a figure.

What is Narrative Research?

In narrative research, researchers describe the lives of individuals, collect and tell stories about people's lives, and write narratives of individual experiences. As a distinct form of qualitative research, a narrative typically focuses on studying a single person, gathering data through the collection of stories, reporting individual experiences, and discussing the meaning of those experiences for the individual.

- Focus: Exploring the experiences of an individual.
- Type of problem: Needing to tell stories of a broad range of experiences.
- Discipline background: Business, humanities, anthropology, literature, history, psychology and sociology.
- Unit of analysis: Studying one or more individuals.
- Data collection forms: Using primarily interviews and documents.
- Data analysis strategies: Analyzing data for stories, “re-storying” stories, developing themes, oftentimes uses a chronology.
- Written report: Developing a narrative about the stories of the broad range of experience.

What is Case Study Research?

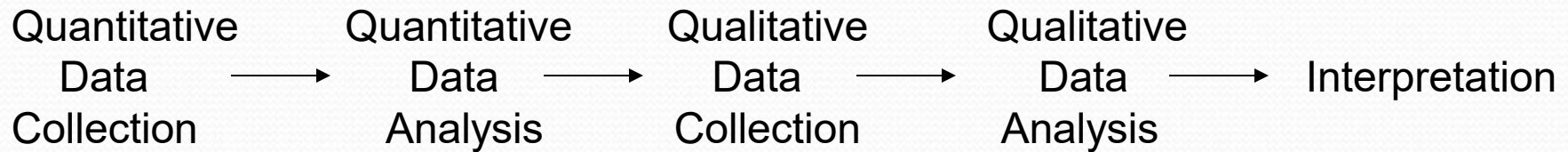
Qualitative research involving a bounded system focusing on a case or issue that is representative of the system. The case is the actual event, process or program, etc, (i.e., a setting or context) being studied.

- Focus: Developing an in-depth description and analysis of a case or multiple cases.
- Type of problem: Providing an in-depth understanding of a case or cases.
- Discipline background: Psychology, law, political science, medicine.
- Unit of analysis: Studying an event, a program, an activity, more than one individual.
- Data collection forms: Using multiple sources such as interviews, observations, documents or artifacts.
- Data analysis strategies: Analyzing data through description of the case and themes of the case as well as cross-case themes.
- Written report: Developing a detailed analysis of one or more cases.

Mixed-Methods Studies

Studies that are products of the pragmatist paradigm and that combine the qualitative and quantitative approaches within different phases of the research process. (Tashakkori & Teddlie, 2008, p.22).

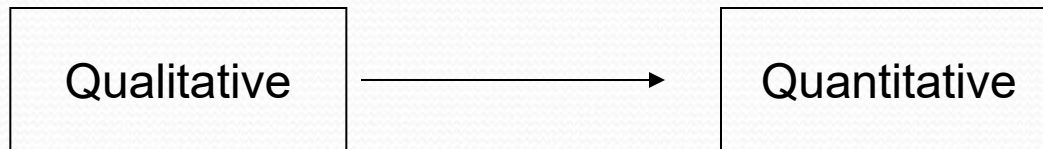
Sequential Explanatory Strategy



Sequential Explanatory Strategy

- The collection and analysis of quantitative data followed by the collection and analysis of qualitative data.
- Equal priority is given to the two phases.
- Data are integrated during interpretation.
- Primary focus is to explain quantitative results by exploring certain results in more detail or helping explain unexpected results (e.g., using follow-up interviews to better understand the results of a quantitative study).
- Strengths: relatively straight forward due to clear, distinct stages and easier to describe than concurrent strategies.
- Weakness: very time consuming especially when both phases are given equal consideration and priority.

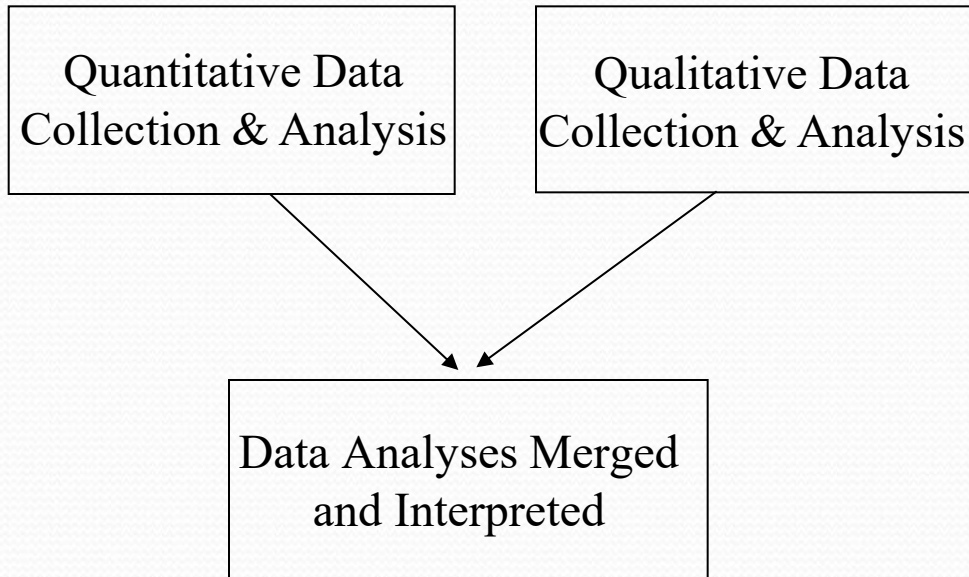
Sequential Exploratory Strategy



Sequential Exploratory Strategy

- The collection and analysis of qualitative data followed by the collection and analysis of quantitative data.
- Equal priority is given to the two phases but priority can be given to either.
- Data are integrated during interpretation.
- Used primarily to explore a phenomenon by:
 - Testing elements of a theory
 - Generalizing qualitative findings to different samples
 - Development of instrumentation (e.g., using a small group to create instrumentation and then collecting quantitative data based on the instrumentation).
- Strength: relatively straight forward due to clear, distinct stages and easier to describe than concurrent strategies.
- Weakness: very time consuming especially when both phases are given equal consideration and priority.

Convergent Strategy



Convergent Strategy

- There are two concurrent data collection phases.
- Priority should be equal but can be given to either approach.
- Data are integrated during interpretation phase. The interpretation notes either a lack of convergence or convergence that strengthens knowledge claims. Data integration can also occur during analysis.
- Primarily purpose for confirmation, corroboration or cross-validation within a single study.
- Strengths: Familiar to many researchers. Shorter data collection time when compared to sequential methods. Offsets weaknesses inherent to one design by using both.
- Weaknesses: Requires a great deal of expertise and effort to study the phenomenon under consideration using two different methods. It may be difficult to compare two types of data as well as resolve discrepancies if they arise.

Participants

- The population is all possible participants in a study (e.g., people, objects, classes).
- The sample is a representative sub-set of the population.
- The site is where the population or sample is drawn from.
- The sampling methodology must be clearly explained.

What is Sampling?

Sampling is the selection of a group of subjects for a study (the sample) that is representative of an entire group (the population). The purpose of the sample is to gather information about the sample that is generalizable to the population.

Definitions Used in Sampling

- Parameters
 - Numeric values computed about all of the values in a population. For example, the average age of all of the students in a high school.
- Statistics
 - Numeric values computed about a sample drawn from a population. For example, if we randomly select 100 students from a high school and compute the average age, it is called a “statistic”.
- Reliability
 - The degree to which a sample represents a population or the degree to which an instrument correctly measures a content area or construct
- Systematic error
 - Error introduced into a sample due to some fault of the researcher.
- Random error
 - Error that is expected due to the very nature of a sampling process.

Steps in Sampling

- Identify the population
- Determine the sample size needed
- Select the sample using the most appropriate sampling method
- Avoid sampling bias!

Determine the Sample Size Needed

- The larger the sample, the more generalizable
- Approximate sample sizes
 - Survey: 10% for small populations, smaller percentages for larger populations
 - Correlational: at least 15 subjects per group
 - Causal-comparative: at least 30 subjects per group
 - Experimental studies: 25 subjects per group
- Randomization is the key word
- Statistical formulae exist for exact sample size

Probabilistic Sampling

- Random sampling
 - All subjects have an equal chance
 - Best representative sample
- Stratified sampling
 - Selection is made from subgroups
 - Sampling repeated for each subgroup
- Cluster sampling
 - Clusters or groups from the population are sampled
- Systematic sampling
 - Every n th member of the population is selected
 - Is random if list of population is random

Random Sampling

In research we are generally unable to use the entire population because of size, inconvenience, cost, etc. With this in mind, we try to select a random sample that accurately reflects the population from whence it was drawn. This homogeneity is important since the researcher wants to make inferences based on statistics calculated about the sample. Concerns arising from sampling include reliability, validity, systematic error and random error.

Non-Probabilistic Sampling

- Cause sampling bias
- Cause validity problems
- Generally is the fault of the researcher
- Examples include convenience sampling, quota sampling or judgmental (purposive) sampling
- Must be detailed in final report as delimitation

Instrumentation

- **Any test or tool you can use to collect data.**
- **Achievement tests**
- **Non-projective personality tests**
 - Personality inventories (e.g., Myers-Briggs)
 - Attitude scales
 - Interest inventories
- **Projective personality tests**
 - Rorschach Inkblot / Thematic Apperception Test (TAT)
- **Aptitude Tests**
 - General
 - Specific
 - Readiness

Choosing the Right Instrument for Data Collection

- The instrument you choose for data collection affects the results of the entire study
- Validity is your primary concern!
- Reliability is a secondary concern

Instrument Validity

- Validity – does an instrument measure what it is supposed to measure?
 - Content validity
 - Construct validity
 - Concurrent validity

Content Validity

- Content validity is the degree to which a specific content area is measured. Concerns include:
 - Item Validity
 - Sampling Validity
 - Expert Judgment

Construct Validity

- Construct validity is the degree to which a hypothetical construct such as motivation, intelligence or learning style is measured
- This type of validity is established by testing hypotheses that address the construct

Concurrent Validity

- Concurrent validity is the degree to which scores from the instrument being validated correlate with the scores from a previously validated instrument
- A high correlation coefficient (e.g., close to +1) indicates good concurrency
- Low correlations should be avoided

Reliability

- Reliability is the consistency with which an instrument measures the construct or content area it is intended to measure
- Reliability is established using such techniques as split-half, rationale equivalence and scorer-rater
- Reliability is reported as a coefficient ranging from 0.00 (low) to +1.00 (high). Anything above .70 is considered sufficient for most cases
- Different coefficients include Cronbach's alpha, Kuder-Richardson values and the Spearman-Brown Prophecy formula

Instrument Selection Guidelines

- It is almost always easier to find an instrument than to develop one
- There are a variety of instruments for a single purpose. Find the one that best suits your purposes – don't pick the first one you find!
- Consider scoring time, costs, professional needs, etc.
- If you must develop your own instrument, allow ample time for the development and validation process

If you develop...

- Validity is the primary consideration
- Reliability is the second consideration
- Use an expert panel to aid in the pre-validation of your instrument
- Allow ample time to pre-test the instrument to assess validity and reliability

Sources of Instrumentation

- Those you have access to – ensure validity and reliability
- Buro's Mental Measurements Yearbook
- Tests in Print (Previous Buro's)
- Publishers and distributors
- ETS test collection
- Professional journals

Materials / Apparatus

This will include a description of anything you need to complete your study such as personal computers, software, training manuals, books, etc. It will also include anything that you need to develop specifically for your study.

Research Procedures

This is a step-by-step guide to conducting your research. The results of your study are directly affected by how well the Procedures are developed and followed. If you don't closely follow this "road map", you run the risk of producing results that are not valid.

Ethical Concerns

- Participants must participate voluntarily.
- Participants must understand purpose and procedures of the study.
- Participants must understand that they have the right to a copy of the results.
- Participants must understand the potential benefits of the study and that their privacy will be respected.
- Researchers must understand the impact of their presence at research sites and ensure that these sites are left undisturbed at the end of the study.
- Care must be taken to identify and nullify any actual or perceived issues where power between the researcher and participant could be abused.
- Anonymity must be maintained during data analysis and data kept for a reasonable period of time.
- Ensure that writing is free of bias towards any group (e.g., age, ethnicity, sexual orientation, race, gender, etc.)
- The details of the study must be carefully explained within the actual report so as to allow readers the opportunity to judge the ethical quality of the study for themselves.

Chapter 4 – Data Analysis

Chapter 4 includes an objective description and analysis of the findings, results or outcomes of the research. Limit the use of charts, tables, figures to those that are needed to support the narrative. Most of these illustrations can be included as part of the appendices.

The following topics are intended to serve as a guide:

- Data analysis
- Findings
- Summary of results - If the research has been guided by hypotheses, make a statement as to whether the data supported or rejected these hypotheses.

Chapter 5: Conclusions, Implications, Recommendations, and Summary

In this chapter, interpret, examine, and qualify the results of the investigation and draw inferences from them. The following topics are intended to serve as a guide:

Conclusions: Clearly state the conclusions of the study based on the analysis performed and results achieved. Indicate by the evidence or logical development the extent to which the specified objectives have been accomplished. Discuss alternative explanations for the findings, if appropriate. Delineate strengths, weaknesses, and limitations of the study.

Implications: Discuss the impact of the work on the field of study and its contributions to knowledge and professional practice. Discuss implications for future research.

Recommendations: Present recommendations for future research or for changes in research methods or theoretical concepts. As appropriate, present recommendations for changes in academic practice, professional practice, or organizational procedures, practices and behavior.

Summary: Present a summary of the entire paper, written so that it could serve as a standalone document.