

Research Methodology

Sanjay Arora

Associate Professor

Central University of Rajasthan, Ajmer

Brainstorming

1. What according to you is research?
2. Which research methods are you familiar with?
3. Is it necessary to follow a research method?
4. Can't we be creative and innovative in research?

What is research?

- Search for knowledge
- Scientific and systematic search for pertinent information on a specific topic
- Search for new facts in any branch of knowledge
- A movement from the known to the unknown

What does research comprise?

- **Defining** and redefining problems
- Formulating **hypothesis**
- **Collecting, organising** and **evaluating data**
- Making **deductions** (finding answers)
- Reaching **conclusions**
- Testing the conclusion whether it fits the formulated hypothesis

Your Plan of Dissertation?

Research methodology

- How will you do your research?
- Why do you want to choose a particular research method?

What is Research Methodology?

- Procedures/ techniques for identifying, selecting, processing, and analyzing information
- Evaluate validity and reliability of a study

Type of thesis

- i) Traditional** (literature based)
- ii) Descriptive** (surveys, fact-finding, causes)
- iii) Analytical** (critical evaluation of facts available)
- iv) Applied** (finding solutions to problems related to society, industry and business)
- v) Fundamental** (pure mathematics, science)

Type of thesis (Cont.)

- vi) Quantitative** (measurement of some characteristics)
- vii) Qualitative** (qualitative phenomenon; human behaviour)
- viii) Conceptual (philosophy)
- ix) Empirical** (experience, observation, field work, factual data collection, analysis, working hypothesis)
- x) Longitudinal** (Historical, Case study and Genetic research)
- xi) Cross-Sectional** (Experimental and Survey Research)

Plagiarism

- Using another writer's/ researcher's words/ ideas without proper citation
- Borrowing another writer's/ researcher's structure without giving the source

Citation

- Single extract (400 words)
- Series of extract from the same work (one extract 300 words; maximum 800 words)
- APA style

What to do before selection of topic?

- Read relevant books and journal articles
- Watch relevant documentaries
- Interact with people in the field
- Go through related research in the field
- Listen to lectures in the field

Topic Selection

- possibilities/ manageability
- problems
- debating
- narrowing
- reviewing
- tying to theory
- generating new questions
- Why? (RoL)
- **How? (RM)**
- What? (Result)

Tips for Topic Selection

- Uniqueness
- Clarity
- Preciseness
- Originality

Topics for discussion

1. “Concept of family in the 19th and 20th century children’s literature in English: A select study”
2. “Contribution of women dramatists of India: An evaluation”
3. “Works of Jhumpa Lahiri: A study in multiple perspectives”
4. “Contemporary issues and the plays of Mahesh Dattani”

Shodh Ganga (BHU)

Sample Topic

- **Regression and Progression: A qualitative study of undergraduate speakers of English in CURaj (13 words)**

BROAD TOPIC: undergraduate speakers of English

FOCAL TOPIC: regression and progression

CONTEXT: CURaj and Face-to-face

METHODOLOGY: qualitative

Sample Topic

- “Virgins and Vamps: A Study of Female Gaze through the Select Works of Devdutt Pattnaik and Kavita Kane” (18 words)

BROAD TOPIC: Female gaze

FOCAL TOPIC: Virgins and Vamps

CONTEXT: Devdutt Pattnaik and Kavita Kane

METHODOLOGY: Comparative

Grappling with the Topic

- A sociolinguistic study of L2 speakers from select senior secondary schools of Northern India (New Delhi)
- Analyzing L2 learners of Northern India through a sociolinguistic study
- English as a lingua franca: A sociolinguistic study of L2 learners in Northern India
- Ethnomethodology of code-mixing by L2 speakers from Northern India
- Conversational analysis of L2 speakers in Northern India
- Critical Discourse Analysis of ESL users in North India
- Ethnomethodology of code-mixing and code-switching by L2 users in social media chats.
- Ethnomethodology of code-mixing and code-switching by L2 speakers of English in India.
- Ethnomethodology of code-mixing and code-switching in television ads in India.

Research Proposal

- Title of Research
- Dedication
- Acknowledgement
- Contents
- Acronyms
- Tables/ Figures

1. Introduction

2. Review of Literature

3. Theoretical Underpinning

4. Methodology

5. Data Analysis

6. Conclusion

- Bibliography (APA)
- Appendix/ Appendices

Tentative Plan of dissertation

- 1. Introduction** (rationale for choosing the topic, hypothesis (problem), aims and objectives, scope (confinement), chapter plan)
- 2. Literature review**
- 3. Research Methodology (Exploratory, empirical)**
4. Theoretical base
5. Comparative Analysis
- 6. Data collection and analysis** (analytical; results and findings)
- 7. Conclusion** (recommendations, limitations, scope for future researchers)

Tentative Questions (Literature)

1. Why did you choose a particular method of research (discourse analysis, visual etc.)?
2. Why were other research methods dropped?
3. How did you analyse the chosen text(s)?
4. What were the limitations of the research methods used?
5. What claims can be made about the research method used?
6. What problems were faced?
7. How did you overcome them?

Research in Literature

1. Textual analysis
2. Visual methods (film, photo, painting)
3. Quantitative methods
4. Autobiographical methods
5. Biographical methods
6. Discourse analysis (language in social context; how people interact)
7. Narrative analysis (how people talk about their experience)
8. Content analysis (grouping content into recurring themes)
9. Interviewing
10. Archival methods (primary sources in archives)
11. Ethnographic methods (races and cultures)
12. Oral history
13. Creative writing as a research method
14. Research using ICT

Research Methods for English Studies

1. Introduction (**Gabriele Griffin- Editor**)
2. Archival Methods (Carolyn Steedman)
3. Auto/biographical Methods (Mary Evans)
4. Oral History (Penny Summerfield)
5. Visual Methodologies (Gillian Rose)
6. Discourse Analysis (Gabriele Griffin)
7. The Uses of Ethnographic Methods in English Studies (Rachel Alsop)
8. Numbers and Words: Quantitative Methods for Scholars of Texts (Pat Hudson)
9. Textual Analysis (Catherine Belsey)
10. Interviewing (Gabriele Griffin)
11. Creative Writing as a Research Method (Jon Cook)
12. English Research Methods and the Digital Humanities (Marilyn Deegan)

Introduction

1. Definition & Introduction to the topic
2. Scope of Study
3. Aims & Objectives
4. Literature Review (if not taken separately)
5. Hypothesis
6. Chapter Plan
7. Conclusion

Aims

- **‘What are you doing?’ (intention and goal)**

Aims need to

- test past theory
- derive new theory (if possible)
- construct a new data-set (if possible)
- question existing orthodoxy
- be explicit
- promise the achievable

Research Aims

- (i) To gain familiarity with a phenomenon or to achieve new insights into it (**exploratory or formative research studies**)
- (ii) To portray accurately the characteristics of a particular individual, situation or a group (**descriptive research studies**)
- (iii) To determine the frequency with which something occurs or the element with which it is associated (**diagnostic research studies**)
- (iv) To test a hypothesis of a causal relationship (one to the other) between variables (**hypothesis-testing research studies**)

Sample Research Aim

The research aims

- **to undertake qualitative examination (Orientation) of oral communication (Primary research intent) of undergraduate students on CURaj campus (Data)**
- **to identify factors which have an impact on oral communication in English (Second research intent: to evaluate and understand)**
- **to suggest ways of improving oral communication (Research outcome)**

Objectives

- ‘How are you doing it?’ (steps to achieve your aims)

Objectives need to be **SMART**

- **Specific:** What you are going to do?
- **Measurable:** How will you achieve your aim?
- **Achievable:** Don't be overambitious.
- **Realistic:** Recognise the constraints. (time, resources)
- **Time bound:** Define a time to achieve each objective

Hypothesis

- A **guess statement** that asserts that a **relationship** exists between two or more **variables**
 - i) **tentative propositions** (a phenomenon to confirm or deny assumptions, methodology or methods) **based on existing knowledge** (theory) and its use to explain a situation

Hypothesis ...

ii) **confined** to the situation at hand

iii) contains **details of variables**

(undergraduates, postgraduates, teachers) to be investigated

iv) if consequences **logically follow**, it **confirms** the hypothesis

Review of Literature

1. Summary of documents (articles, monographs, reviews, thesis, critical studies)
 - a) focus of the work
 - b) impact and relevance
 - c) gaps left
 - d) variables (not) considered
 - e) Research questions asked
 - f) Hypothesis used
 - g) Methodology used/ data collection tools

Problems Observed in Review

1. Not organised logically/ chronologically
2. Not focused on most important facets of study
3. Review not related/ linked to the study
4. Very few/ outdated reviews taken
5. Review not in researcher's words
6. Review, a series of disjointed summaries
7. Does not argue a point

Theoretical Underpinning

1. Background information
2. Alternative views
3. Disagreements

Methods of Collecting Qualitative Data

- semi-structured interviews
- participant observations
- document analysis
- case study

Methods of Collecting Quantitative Data

- Questionnaire
- Opinionnaire
- Online survey
- Rating scales
- Statistical records

Methodology chapter

1. Introduction, purpose and outline (what it is about, what will be covered and in what order)
2. Research questions, proposition or/ and hypothesis (what research puzzle the methodology is intended to address)
3. Key concepts (reference, reasons)
4. Definitions of concepts (attributes and properties)

Methodology ...

5. Indicators of concepts (corresponding attributes, reasons)
6. Measures required/ Study Design (group elicitation task, stimulated recall, semi-structured interview, properties of attributes, levels of measurement, reasons)
7. Data required (type, scope, access, sources, quantity, issues and reasons)
8. Population & Sample (sample frame, selection, issues and reasons)

Methodology ...

9. Research instruments (Observation Protocol, Interview Schedule, Stimulated Recall, what to be used to collect the data, issues and reasons; full copy of instrument administered)
10. Piloting (participants, how they match, any changes to design or instruments as a result of piloting)
10. Reliability checks (inter-test, re-test and parallel forms; issues and reasons)
11. Validity procedures (construct, internal, external validity, issues and reasons)
12. Analysis techniques (type of analysis to be used on the data; issues and reasons)

Methodology ...

13. Data Collection Procedure (chronology, step-by-step progress of the study, gaining consent from the participants, order, where how, how long)

Stages	What I did?	What they did?	Place	Duration	How?
Acceptance mail and message					
Piloting the study					
Group elicitation					
Stimulated recall					

Methodology ...

14. Analysis Strategy (Sections as per the research questions)

i) QUAN. RQs: How will the data be turned from your instruments into variables? Kind of variables? Distribution of the variables? (Inferential analysis used to answer the RQs? Justification of using it)

Methodology ...

ii) QUAL. RQs: How will the final data be prepared (e.g. if transcribing spoken data from interviews, describe and justify transcription protocol)? Justify qualitative analysis approach with reference to the literature available.

Ethical Considerations

- Ethical consent
- Ethical implications
- Impact of the research on the participants
- Steps taken to mitigate negative impact
- Ethical approval copy (in the appendix)

What is a variable?

Variable

- **an object, event, idea, feeling, time period etc that we are trying to count (quantity) or measure (quality)**
- **Subject to variation**

Variable Types

A. Independent – Researcher has control

B. Dependent – Researcher does not have control

*** An independent variable can change the dependent variable but a dependent variable cannot change an independent variable**

Examples of Variables

A. Independent

hunger

amount of vitamin given

time spent studying

age

weight

income

education

B. Dependent

ability to throw a ball (dependent on strength)

test score (dependent on intelligence)

Questions to be addressed

1. Why did you collect this data?
2. What data did you leave out and why?
3. How was the data collected? (tools, measurement, sampling procedure)
4. How reliable and valid were the methods used?
5. What were the limitations of the data and methods? (scope, quantity, depth)

Questions ...

6. What were the techniques used to analyse the data? (content, semiology (signs, symbols), conversation analysis)
7. What claims can be made about the data? (validity, generalization)
8. What problems were faced?
9. How did you overcome them?

Conclusion

1. Gaps left
2. Hypothesis Review
3. Aims & Objectives achieved?
4. Choice of Methodology?
5. Hurdles
6. Findings
7. Suggestions
8. Recommendations

Appendices

1. Interviews
2. Questionnaires
3. Schedules
4. Word list
5. Exercises/ Tasks/ Sample exercises
6. Pictures
7. Related information
8. Content of texts analysed
9. List of suggested articles (books)

Any Questions???

Thank you!

www.causenglish.com