



IMRD: Methods

Methods



Specific procedures or techniques



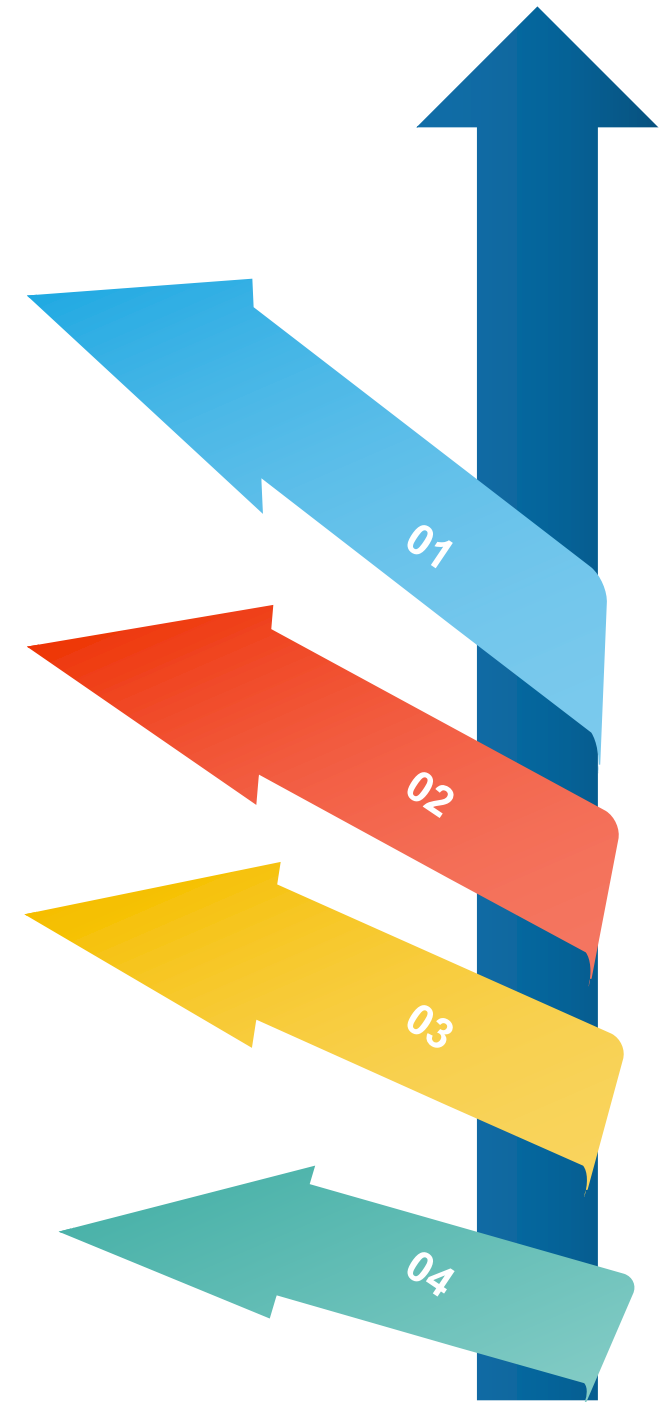
Identify, select, process & analyze information



Most scrutinized part of research



Determines the study's overall validity & reliability



IMRD: Methods *Objectives*

“

How did you conduct your study?

What / Who did you
use for the study?

How did you do it?



IMRD: Methods *Main Questions*

“ How did you conduct your study?

How was the data
collected?

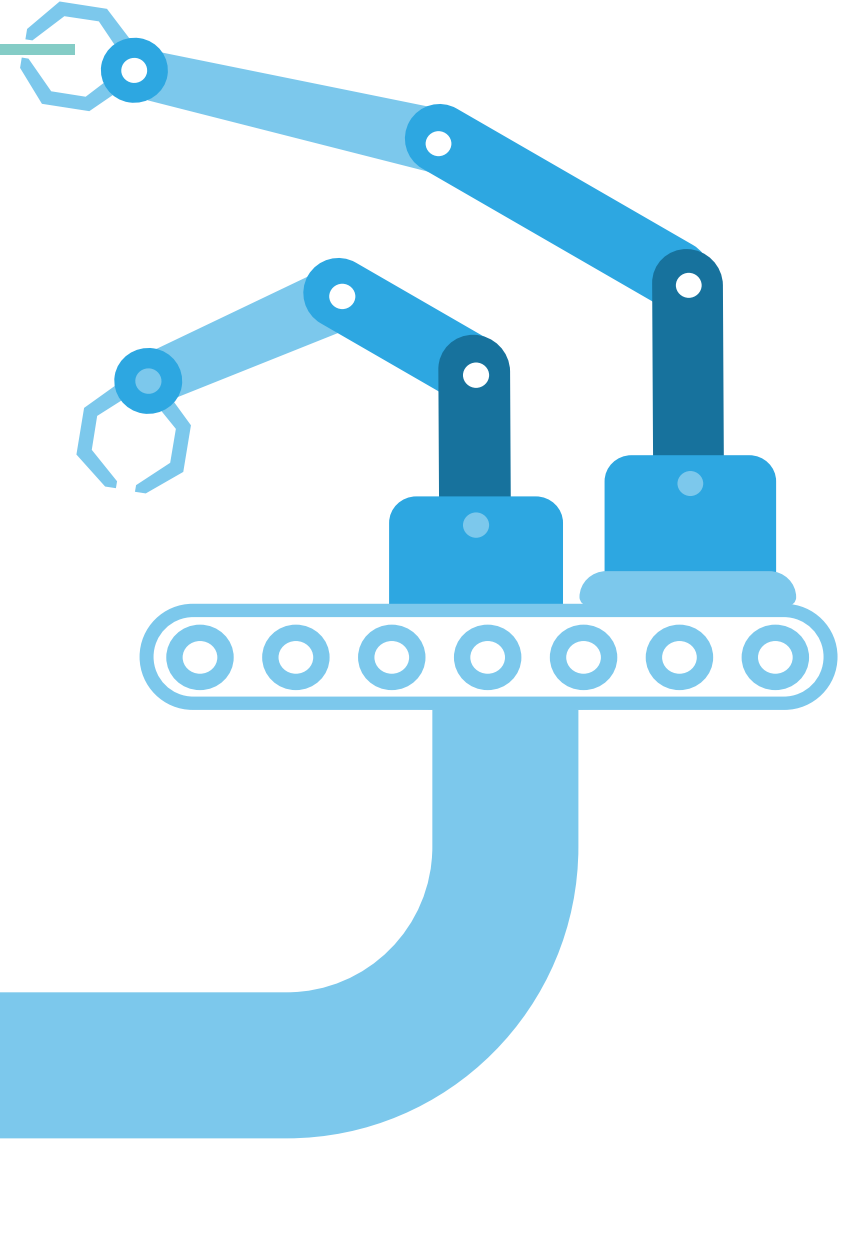
How was it analyzed?



Considerations

- ✓ Why did you choose your data?
- ✓ How will you analyze your data?
- ✓ Can you explain the entire process?
- ✓ Can you justify all your choices?

Think Carefully



Data Gathering Techniques



Data Gathering Technique



*Data Collection /
How you collect you data*

Data Gathering Techniques



Types of Observation

Participant Observation



Field Work



Full-immersion



Experience-based

Naturalistic (Nonparticipant) Observation



Spectator

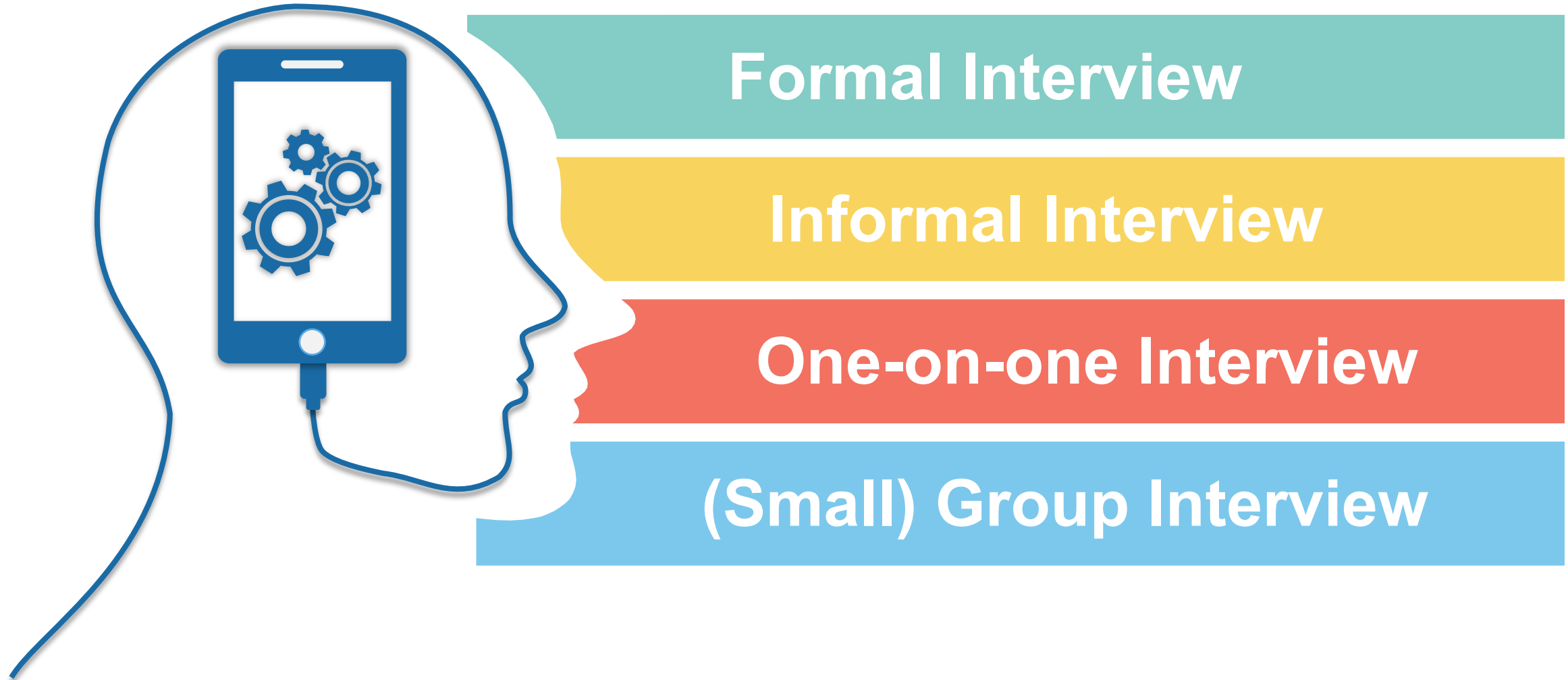


Naturalistic



Non-intervention

Types of Interview



Types of Surveys

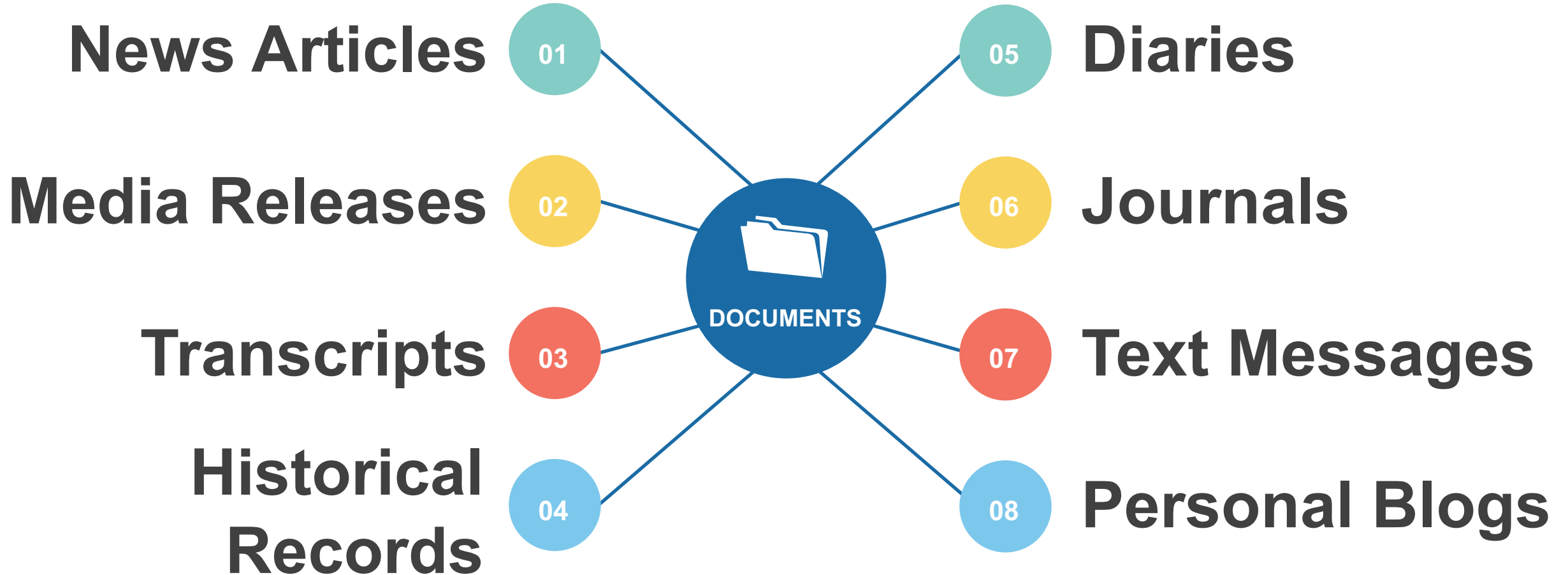
1 Online Surveys

2 Paper Surveys

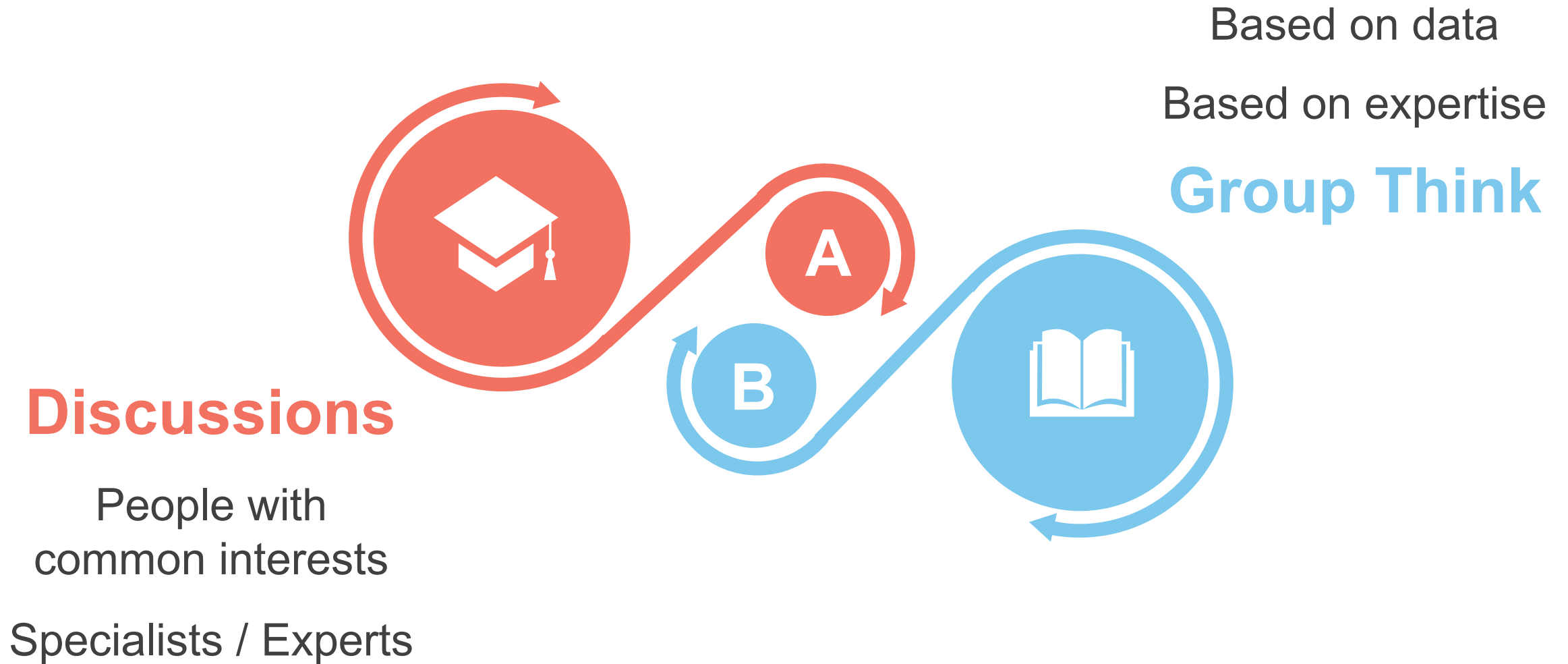
3 Telephone Surveys



Types of Corpora



Focused-Group Discussions



Data Collection

(Considerations)

Reliable

Timely



Valid

Complete

Accurate

Subjects / Objects of Research



Subjects / Objects of Research



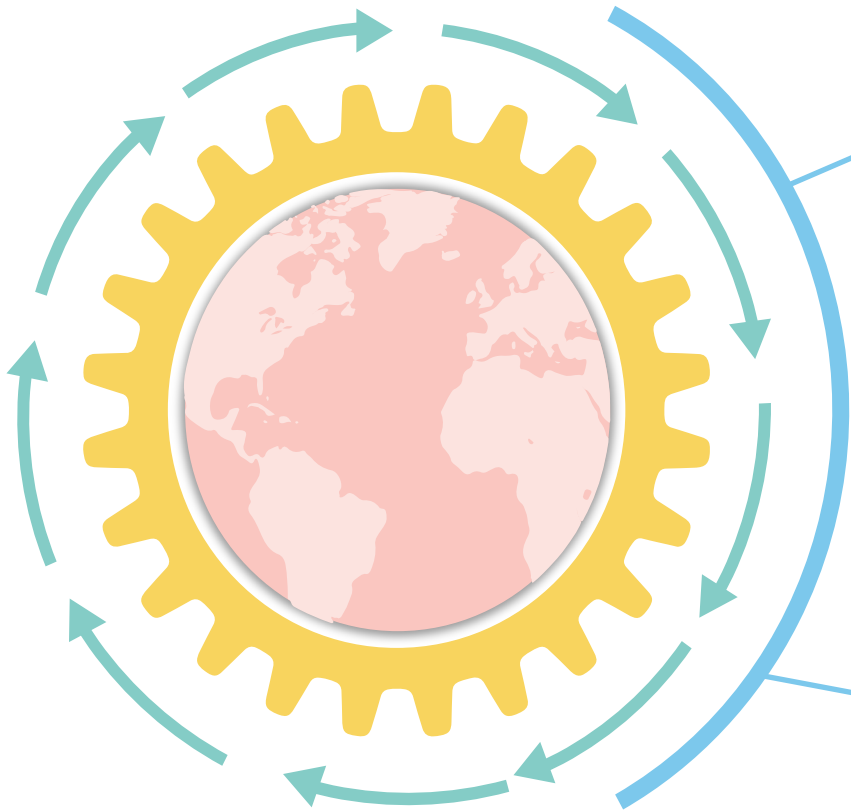
Who / What to collect your data from

Data Collection (What / Who)

Corpora

**Objects /
Programming Language**

People



Participants / Respondents

Profile / Information (Vague)



Number of people



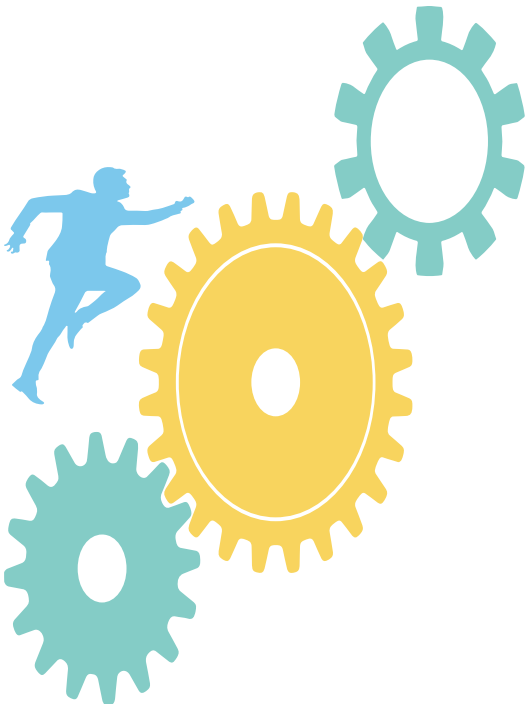
Location (Place & Country)



Occupation



Gender & Age Group



Objects / Programming Language

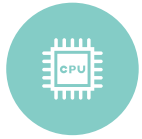
Specific Details / Information



Object name



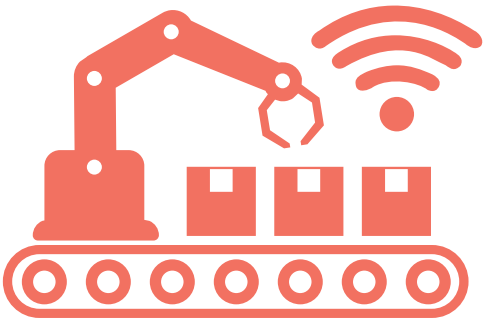
Manufacture Date



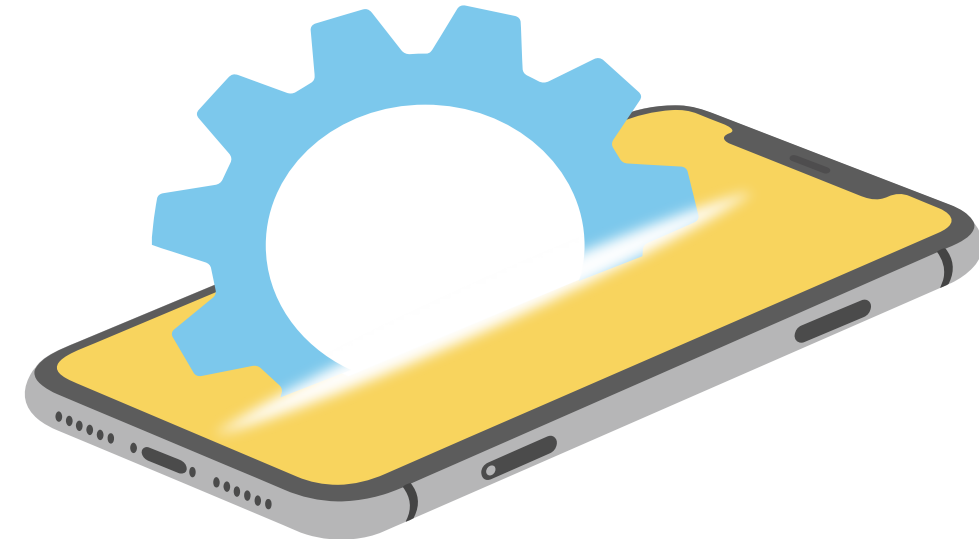
Main usage



Materials



*Used for
Scientific Experiments*



Corpora / Written Documents

Research Topic

Research Articles

Publication Date

News Articles

Target Part of Speech

Linguistics

**Platform /
Application**

Text Messages

Number of Words

Overall



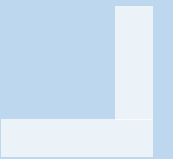
Data Analysis Method



Data Analysis Method



How you analyze your data





- Measure differences between groups
- Asses relationships between variables
- Test hypothesis (experiments)
- Deals with numbers & statistics

- Explore concepts & ideas in detail
- Analyze social norms (observations)
- Share experiences (field work)
- Deals with words & meanings

Quantitative Research: Pros & Cons

Pros



**Large samples of data
can be obtained quickly**



**Objectivity &
generalizability**



**Reliable & repeatable
information**

Cons



Limited feedback details



**Unnatural environment
Settings (No context)**



**Expensive /
Cost factor**

Quantitative Data Analysis

Approach	When to Use	Examples
Descriptive Statistics	To summarize collected data into mean (average) and mode (most frequent rating)	You hypothesize that first-year college students procrastinate more than fourth-year college students.
	To convert words into data (numbers)	
	Uses graphs, charts and tables to visualize data	Collect data and use descriptive statistics to get a summary. You find the <u>mean</u> and the <u>mode</u> of procrastination of the two groups.
Inferential Statistics	To make predictions and generalizations based on data	(Same situation as above)
	To test one's hypothesis	Perform inferential statistics to test your hypothesis. Using a <u>t-test</u> to compare the mean ratings of the two groups, you find a significant difference and support for your hypothesis.
	Uses sample data to get population parameters	
<i>**Usually done together with Descriptive S.</i>		

Qualitative Research: Pros & Cons

Pros



**Flexibility &
Natural settings**



Meaningful insights



Generation of new ideas

Cons



Limited generalizability



**Subjectivity &
unreliability**



**Time-consuming &
labor-intensive**

Qualitative Data Analysis

Approach	When to use	Example
Content analysis	To describe and categorize common words, phrases, and ideas in qualitative data.	A market researcher could perform content analysis to find out what kind of language is used in descriptions of therapeutic apps.
Thematic analysis	To identify and interpret patterns and themes in qualitative data.	A psychologist could apply thematic analysis to travel blogs to explore how tourism shapes self-identity.
Textual analysis	To examine the content, structure, and design of texts.	A media researcher could use textual analysis to understand how news coverage of celebrities has changed in the past decade.
Discourse analysis	To study communication and how language is used to achieve effects in specific contexts.	A political scientist could use discourse analysis to study how politicians generate trust in election campaigns.

THANK YOU

