



INDRA G ROCHYAT, S.Sn., MA., M.Ds.

[www.esaunggul.ac.id](http://www.esaunggul.ac.id)

**Metodologi Penelitian**  
**Pertemuan 4**  
**Positioning Research**

## **POSITIONING RESEARCH**

Mengupas pemahaman mengenai posisi penelitian ditinjau dari landasan teoritikal, asumsi dasar, dan metodologi yang ditawarkan:  
purpose / process / outcome / logic



# POSITIONING RESEARCH



research is a reflection of habitus and ideology of a researcher

### habitus

structure of the mind acquired through schemata, sensibilities, activities and experiences. It reproduces taste, preferences, and actions.

(Adapted from Scott, J and Marshall, G, 1998: Dictionary of Sociology)

research position

### ideology

- <sup>1</sup> system of ideas and ideals
- <sup>2</sup> set of conscious / unconscious beliefs of a social group or individual.

(Adapted from Oxford Online Dictionary, 2013)

way of behave

way of thinking

the **question** to seek  
the way to **answer**  
the interpretation of **findings**



Adapted from Guba (1990),  
Crouch-Pearce (2012)

- ontology** philosophy of **reality** and truth (what can be known)
- epistemology** philosophy of **knowledge** (how it can be known)
- axiology** philosophy of **values** and ethics

research  
paradigm



# THEORETICAL PERSPECTIVE OF RESEARCH

# Theoretical Perspective of Research

Adapted from Saunders et al, 2007

## Typical patterns of research execution

Underlying view on methodology and/or theories of particular approach

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POSITIVISM

Cara sistematis untuk men-justifikasi pernyataan melalui proses verifikasi dengan cara numerik

INTERPRETIVISM

Cara sistematis untuk mendapatkan temuan yang dapat mendukung pernyataan melalui telaah atas makna, fenomena, dan pola

# Positivism

## Theoretical Perspective

Adapted from Saunders et al, 2007

REALITY  
ACCORDING  
TO SENSES

SCIENTIFIC  
OBSERVATION

LOOK FOR  
FACTS  
NOT VALUES

EMPIRICAL  
EXPERIENCE

- Reality consists of what is **available** to the senses – that is, what can be seen, smelt, touched, etc.
- Inquiry should be **based upon scientific observation** (as opposed to philosophical speculation), and therefore on empirical inquiry.
- The natural and human sciences share common logical and methodological principles, dealing with **facts and not with values**.
- Ideas **only** deserve their incorporation into knowledge if they can be put to the test of **empirical experience**.



# Interpretivism

## Theoretical Perspective

Adapted from Crotty (1998)

REALITY IS  
WHAT IS  
BEING  
VALUED +  
UNDERSTOOD

CONTEXTUAL  
INQUIRY

LOOK FOR  
VALUES +  
MEANINGS

Inquiry into ‘culturally derived and historically situated interpretations of the social life-world’ (Crotty, 1998: 67).

- Reality consist of what is being **valued**, **understood**, and **act upon**
- Inquiry be based upon context, and therefore **contextual inquiry**
- It deals with **values and meanings**

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### ideology

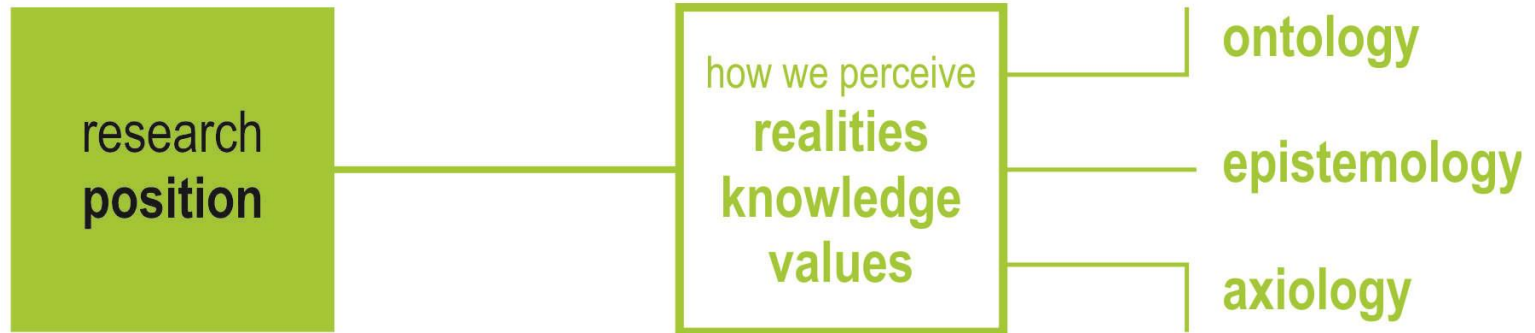
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## positivism

## interpretivism (naturalist)

the nature of  
reality

reality is single, tangible, and  
fragmentable

realities are multiple,  
constructed, and holistic

relationship of  
knower to the known

both are independent,  
a dualism

both are interactive,  
inseparable

possibility of  
generalization

time and context-free  
generalization on issues

time and context-bound  
contextual on issues

role of values

value-free

value-bound



**Answer** according to  
mathematical proof



**Answer** according to  
observed phenomena



## positivism

measuring effective performance  
of an object

universal  
replicable  
fixed responses  
use formal instruments

## interpretivism (naturalist)

observing behaviors of a group of  
people toward an object

contextual  
unique  
unstructured or semi-structured  
responses  
researcher as instrument



occurrence  
of event

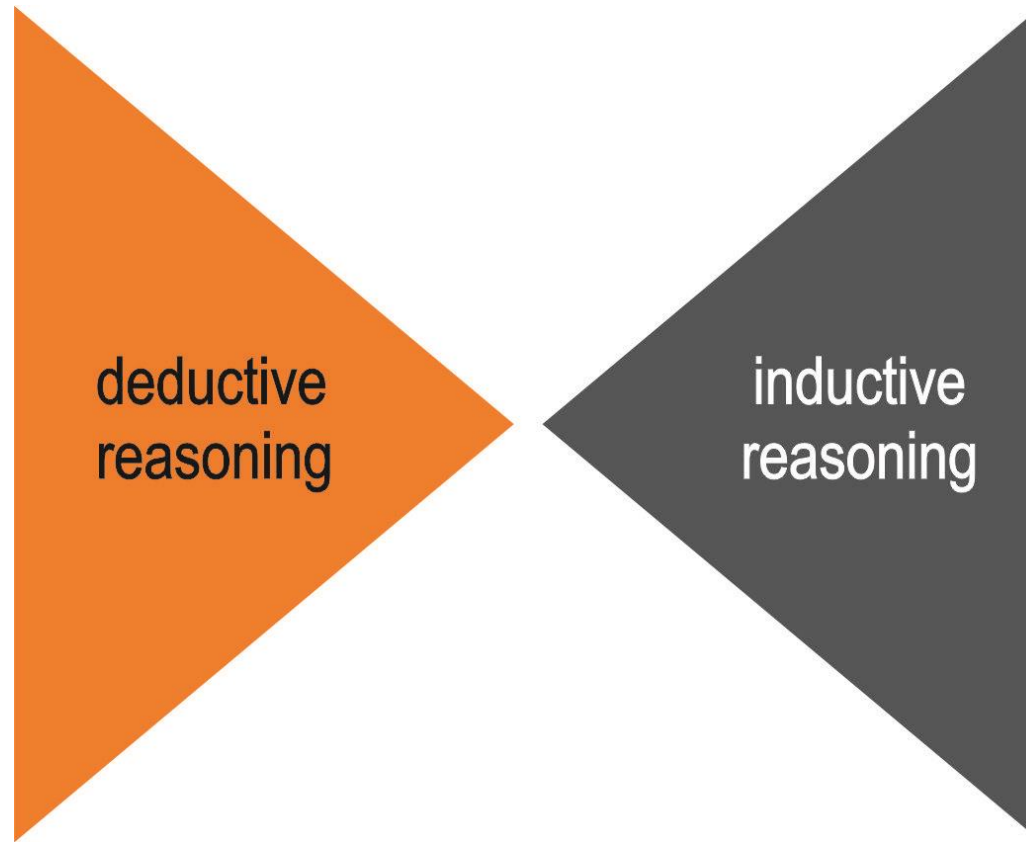
phenomena

coincident

pattern



# INDUCTIVE DEDUCTIVE REASONINGS



deductive  
reasoning

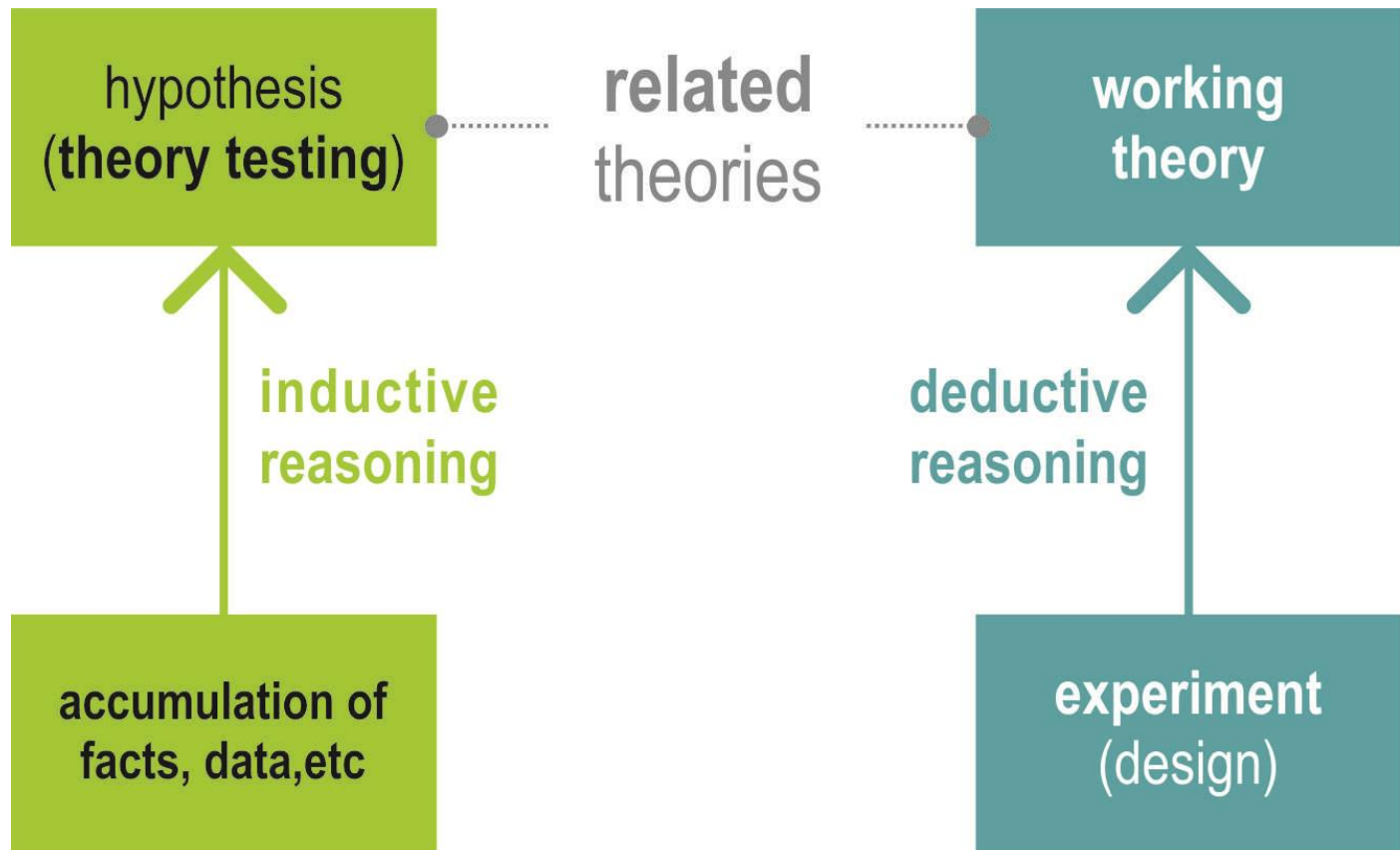
inductive  
reasoning

From general to specific

Based on Theory / Underlying Knowledge  
Set of Hypothesis  
Analysis + Synthesis  
Confirmation

From specific to general

Based on Observation  
Pattern, Accumulated facts  
Tentative Hypothesis / Assumption  
Proposed Theory



adapted from Crotty, 1999



# MODES OF RESEARCH

QUANTITATIVE

QUALITATIVE

## Quantitative

*A formal, objective, systematic process in which **numerical data** are utilized to obtain information* (Burns-Grove in Cormack, 1991, p 140)

To quantify variations

To predict causal relationship

To describe characteristic of a population

## Qualitative

*-A formal, objective, systematic process in which- findings **not arrived** at by means of statistical procedure or other means of quantification* (Strauss-Corbin, 1990)

To describe variations

To describe and explain relationship

To describe individual experience or group norms

# Approach

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## Quantitative Approach

1. Definition of question
2. Gathering information available on object of investigation
3. Design of survey instrument (questionnaire, observation plan, quantitative interview guideline, etc.)
4. Pretest of survey instrument
5. Collection of data
6. Entry of data
7. Quantitative statistical analysis
8. Interpretation of results and determined relations
9. Presentation of results/writing of report

## Qualitative Approach

1. Definition of question
2. Decision on type and degree of structuring of the used method
3. Design of the interview guideline/observation guideline/discussion guideline, etc.
4. Training of interviewer/observer/moderator, etc.
5. Recruitment of participants
6. Conduction and recording of the questioning/observation
7. Analysis of verbal data/observation data and categorization
8. Interpretation
9. Compilation of results
10. Presentation of results



# Characteristics

Criteria	Quantitative Research	Qualitative Research
<b>Paradigm</b>	<ul style="list-style-type: none"> <li>▪ Mathematical (natural science)</li> <li>▪ Object-related explanation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hermeneutic (social science)</li> <li>▪ Subject-related understanding</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>▪ Test of hypotheses and theories</li> </ul>	<ul style="list-style-type: none"> <li>▪ Derivation of hypotheses and theories</li> </ul>
<b>Approach</b>	<ul style="list-style-type: none"> <li>▪ Deductive approach</li> <li>▪ Generalization</li> <li>▪ Objective, etiological and more particularistic approach</li> <li>▪ Distance</li> <li>▪ Data reduction in order to gain information</li> </ul>	<ul style="list-style-type: none"> <li>▪ Inductive approach</li> <li>▪ Typification</li> <li>▪ Subjective, interpretative and more holistic approach</li> <li>▪ Identification</li> <li>▪ Data extension by explicative analysis</li> </ul>
<b>Process</b>	<ul style="list-style-type: none"> <li>▪ Linear</li> <li>▪ Structured and standardized</li> <li>▪ More static and less flexible</li> <li>▪ Predetermined by the researcher, closed operationalization</li> </ul>	<ul style="list-style-type: none"> <li>▪ Circular</li> <li>▪ Processual</li> <li>▪ More dynamic and flexible</li> <li>▪ Relevance systems of persons involved, open, iterative dialog concept</li> </ul>
<b>Type of data</b>	<ul style="list-style-type: none"> <li>▪ Quantitative data: numbers produced by               <ul style="list-style-type: none"> <li>– measuring</li> <li>– counting</li> <li>– scaling</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Qualitative data: words (mostly) produced by               <ul style="list-style-type: none"> <li>– watching</li> <li>– asking</li> <li>– examining</li> </ul> </li> </ul>
<b>Data collection</b>	<ul style="list-style-type: none"> <li>▪ Questionnaires, experiments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Open interviews, observations, content analysis</li> </ul>
<b>Sample</b>	<ul style="list-style-type: none"> <li>▪ Random sample</li> </ul>	<ul style="list-style-type: none"> <li>▪ Theoretical Sampling</li> </ul>

	<b>Validity</b> (Description of reality with a good fit)	<b>Reliability</b> (Study can be replicated by others)
<b>Quantitative Approach</b>	<ul style="list-style-type: none"> <li>▪ Does the research measure what it was intended to measure?</li> <li>▪ How truthful are the results?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Are the results consistent over time?</li> <li>▪ Can the results be reproduced under a similar methodology?</li> </ul>
<b>Qualitative Approach</b>	<ul style="list-style-type: none"> <li>▪ Was respondent validation applied?</li> <li>▪ Was attention given to negative cases?</li> <li>▪ Has triangulation been done?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Were methods of data collection and analysis described in detail?</li> <li>▪ Did the researcher describe his prior assumptions and experience, including his personal bias?</li> </ul>

# Quantitative Research: Advantages and Disadvantages

- ▶ Possibility to isolate variables in systems and discover causal relations (What?)
- ▶ High measure level and possibility for statistical analysis
- ▶ Highly structured
- ▶ Understandable methods (counting, scales)
- ▶ Focused research questions
- ▶ Lower effort (time, costs) compared to qualitative research methods
- ▶ Replicable results
- ▶ Objective view

- ▶ Threat of nonsense
- ▶ Gap between conceptual approach and reality
- ▶ N/A if no existing theory available
- ▶ Limited with complex questions (reasons, suggestions for improvement, etc.)
- ▶ Lack of flexibility caused by the predetermination of the researcher
- ▶ Acceptance problem in the qualitative research community

"There are lies, damn lies and statistics."  
Samuel Langhorne Clemens et al

# Qualitative Research: Advantages and Disadvantages

- Possibility to examine relations and structures in systems (How?, For which purpose?)
- Flexibility due to process orientation (e.g. possibility for sample extensions during the research process)
- Liberty of involved person to mention all relevant aspects and create a holistic picture
  - Usability for new research fields without theories (explorative approach)
  - Chance on diversified and/or deepened illumination of the research field
  - Subjective view

- Very difficult to generalize
- Danger of "going native" by too high identification
- Uncertainty and danger of inconsistent findings caused by the high flexibility
- No information on statistics (distribution, frequencies)
- Often low measure level
- High effort (time, costs)
- Acceptance problem in the quantitative research community



**Use quantitative approach to:**

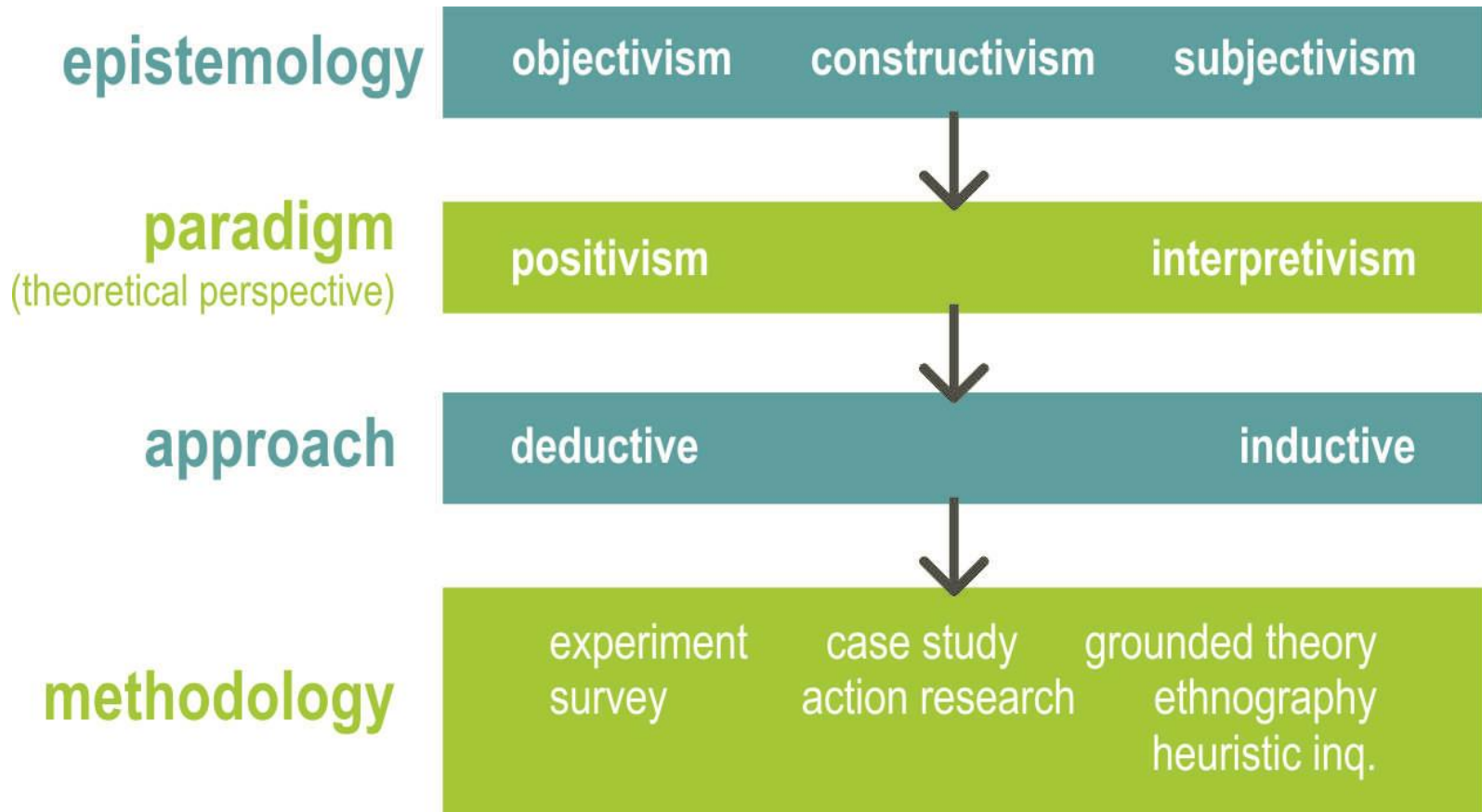
- validate theories/hypotheses.
- measure objectively and quantify a phenomenon.
- test statistical relations.



**Use qualitative approach to:**

- create theories/hypotheses.
- create classifications and typologies.
- interpret and understand relations.

**What is most trustworthy  
in your case?**



Adapted from Saunders et al, 2007,  
Crotty, 1999



# PURPOSE OF INQUIRY



# Purpose of Inquiry

Adapted from Robson, 1993

A reason, intention, or purpose for investigating

Tujuan melakukan pengkajian / telaah / investigasi / tinjauan

## Exploratory

To find out what is happening

To seek new insight

To define things

To assess phenomena

Usually (not necessarily) **qualitative**

## Descriptive

To portray accurate events, profiles, or situations

Requires extensive previous knowledge

Maybe **qualitative** or **quantitative**

## Explanatory

Seeks an explanation of a situation or problem (usually causal relationship)

Maybe **quantitative** or **qualitative**



# Purpose of Inquiry

Adapted from Robson, 1993

## Exploratory

Usually use How or Why

**Variables unknown**

Context-bound

Appropriately use **case studies**

## Descriptive

Usually use who, what, where, how many, how much

**Variables identified**

Context-bound

Appropriately use **survey**

## Explanatory

Usually use How or Why

**Variables identified**

Context-free

Causal relationship

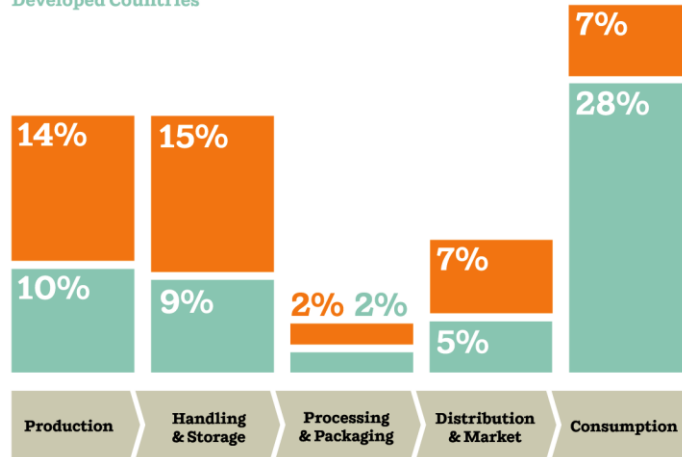
Appropriately use **experiment**

	scope of identified problem	method of data collecting	purpose of analysis
<b>Exploratory</b>	<ul style="list-style-type: none"> <li>Explore Ideas</li> <li>Expose Values</li> <li>Observe Identity</li> <li>Sustain Environment</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Interview</li> <li>Documentary Analysis</li> </ul>	Exploring new object, ideas, values
<b>Descriptive</b>	<ul style="list-style-type: none"> <li>Compare ideas</li> <li>Observe phenomena</li> <li>Evaluate object</li> <li>Identify pattern</li> </ul>	<ul style="list-style-type: none"> <li>Survey</li> <li>Questionnaire</li> <li>Structured interview</li> <li>Image analysis</li> </ul>	Exposing applied concept, ideas, values
<b>Explanatory</b>	<ul style="list-style-type: none"> <li>Compare object</li> <li>Identify relationship</li> <li>Evaluate effect</li> <li>Measure element</li> </ul>	<ul style="list-style-type: none"> <li>Experiment</li> <li>Questionnaire</li> <li>Sampling</li> <li>Measurement</li> </ul>	Exposing causal relationship, similarities/differences of object

## Estimation of Consumer-Level Food Loss Conversion Factors

SHARE OF TOTAL FOOD LOSS AND WASTE BY STAGE IN THE VALUE CHAIN, 2009 (100% = 1.5 QUADRILLION KCAL)

Developing Countries  
Developed Countries



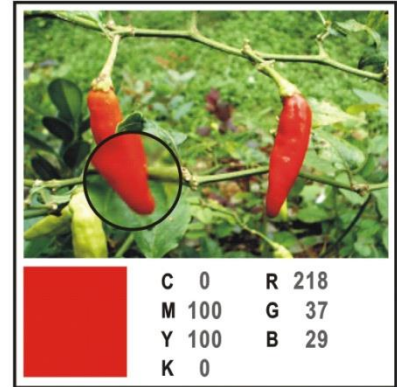
## Assessment of modeled dioxyn exposure in ceramic art studio



## Formalizing Traditional Colors of Sunda into Digital Formats (CMYK and RGB)

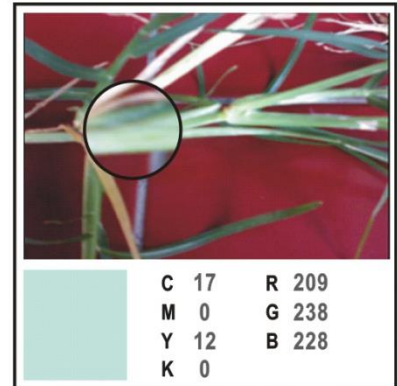
### Beureum cabe

Warna merah yang merujuk warna buah cabai matang



### Hejo-carulang

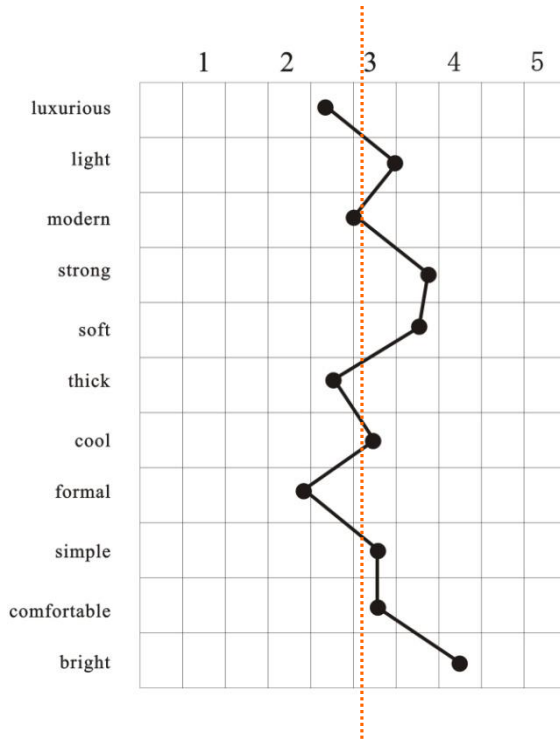
Warna hijau yang merujuk warna bagian batang carulang (sejenis rumput). Rumput carulang memiliki komposisi 2 warna hijau: hijau tua dan muda. Hejo-carulang adalah hijau-muda mendekati putih.



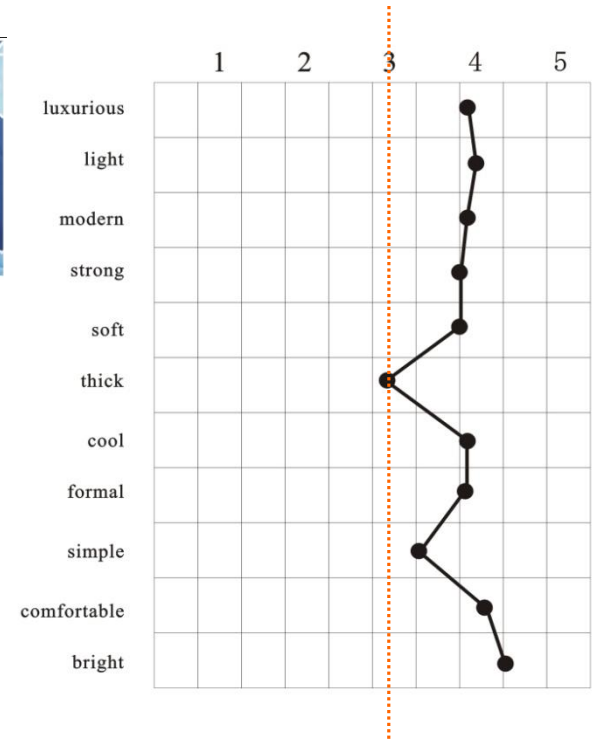


# Identifying Users Perception on Colors and Motifs of Modified Tasikmalayan Batiks





bright, not luxurious, not formal, less modern, less comfortable



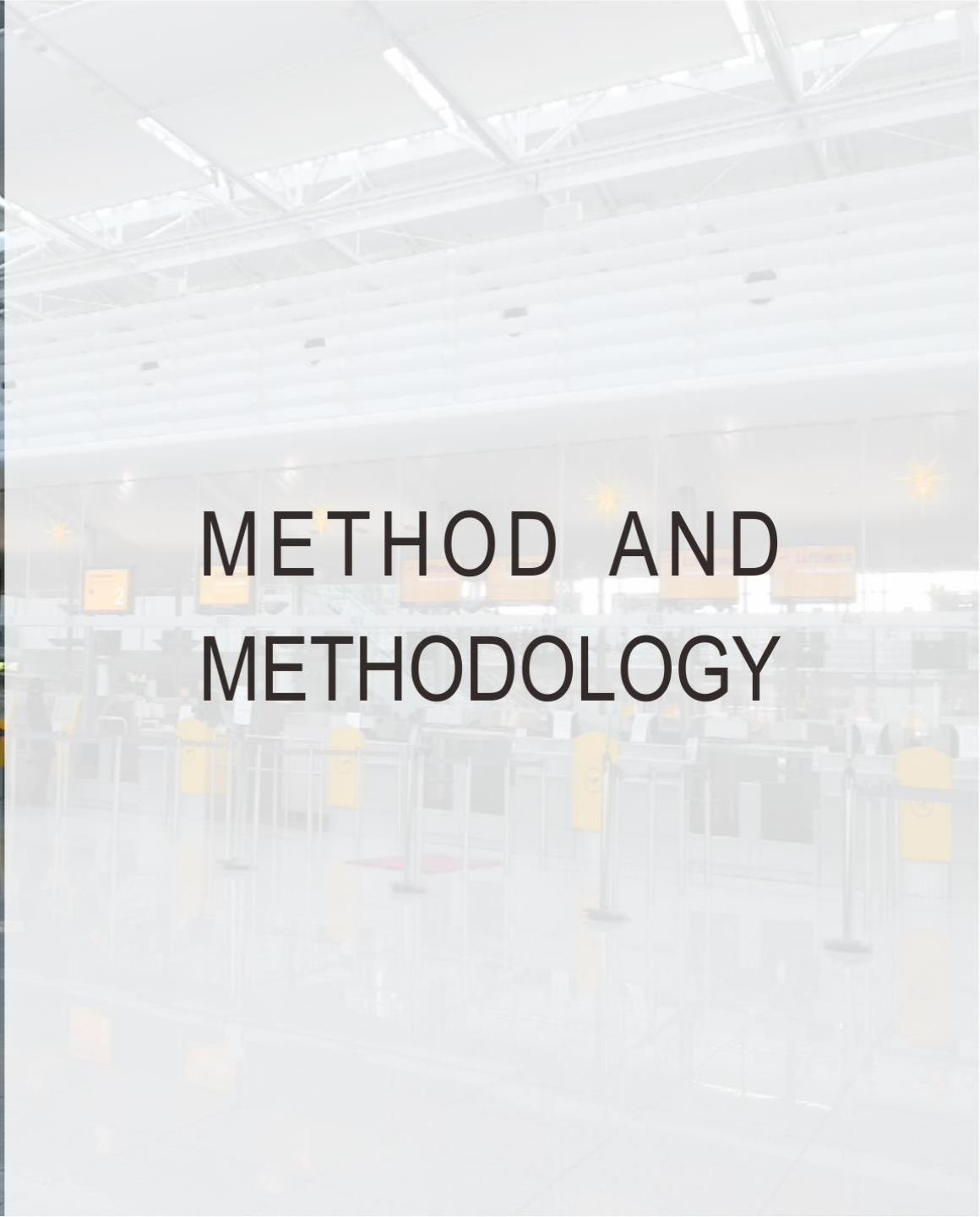
bright, luxurious, modern, formal, highly comfortable

# comfortability





# METHOD AND METHODOLOGY



# research

## Sumber

- Kinash, Shelley (2009) Paradigms, Methodology, and Methods. Bond University
- Bradford School of Management (2012) Introduction to Research

## method

metode adalah teknik atau proses yang digunakan/diterapkan dalam penelitian

vehicle / means / specific tool

## methodology

metodologi adalah disiplin/body of knowledge yang menerapkan atau menggunakan metode tertentu

rationale / logic / overall approach

WHY	mengapa mengumpulkan jenis data tertentu?
WHAT	apa jenis data yang dikumpulkan?
WHERE	dimana data tersebut didapatkan?
HOW	bagaimana proses pengumpulan data tersebut?
HOW	bagaimana data tersebut akan di-analisis?



# research

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## method

collecting artifacts  
interview  
questionnaire  
image analysis

## methodology

ethnography  
semiotics  
experiments  
quasi-experiments  
grounded theory

## RESEARCH METHODS

Metode atau teknik yang digunakan dalam penelitian  
misal: eksperimen, uji/tes  
survey, interview, dsb

tujuannya untuk mendapatkan solusi atas permasalahan yang diteliti

## RESEARCH METHODOLOGY

Penjelasan atas metode yg digunakan dalam penelitian

Logika dan uraian argumentatif mengenai pemilihan, penggunaan metode dlm penelitian

tujuannya untuk menguraikan penetapan prosedur riset yang dianggap sesuai untuk pemecahan masalah

# Pustaka

- Sjarif, Ahmad., MSD, PhD, DIKTAT PERKULIAHAN METODOLOGI DESAIN, Pasca Sarjana, Universitas Trisakti, 2015