Architectural Research & Design Research

Architectural Research

Architectural research requires a **global or holistic understanding** of architecture. It is linked to the central activity of architects: design. It is conditioned by the fact that there are **no determinist theories** of which the design would be the application; **the design itself** is what connects/translates them.

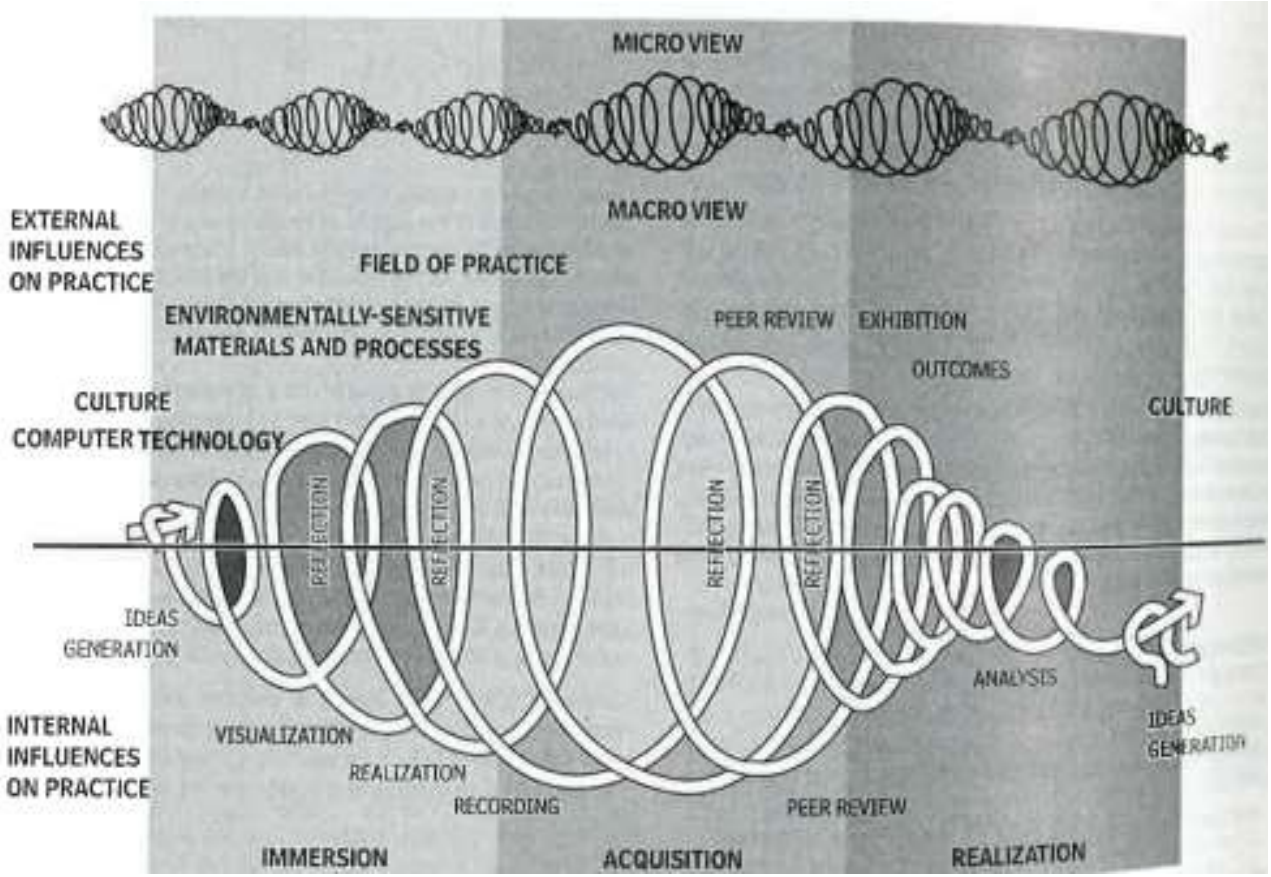
It is a **development/extension/ innovation** of architectural practices.

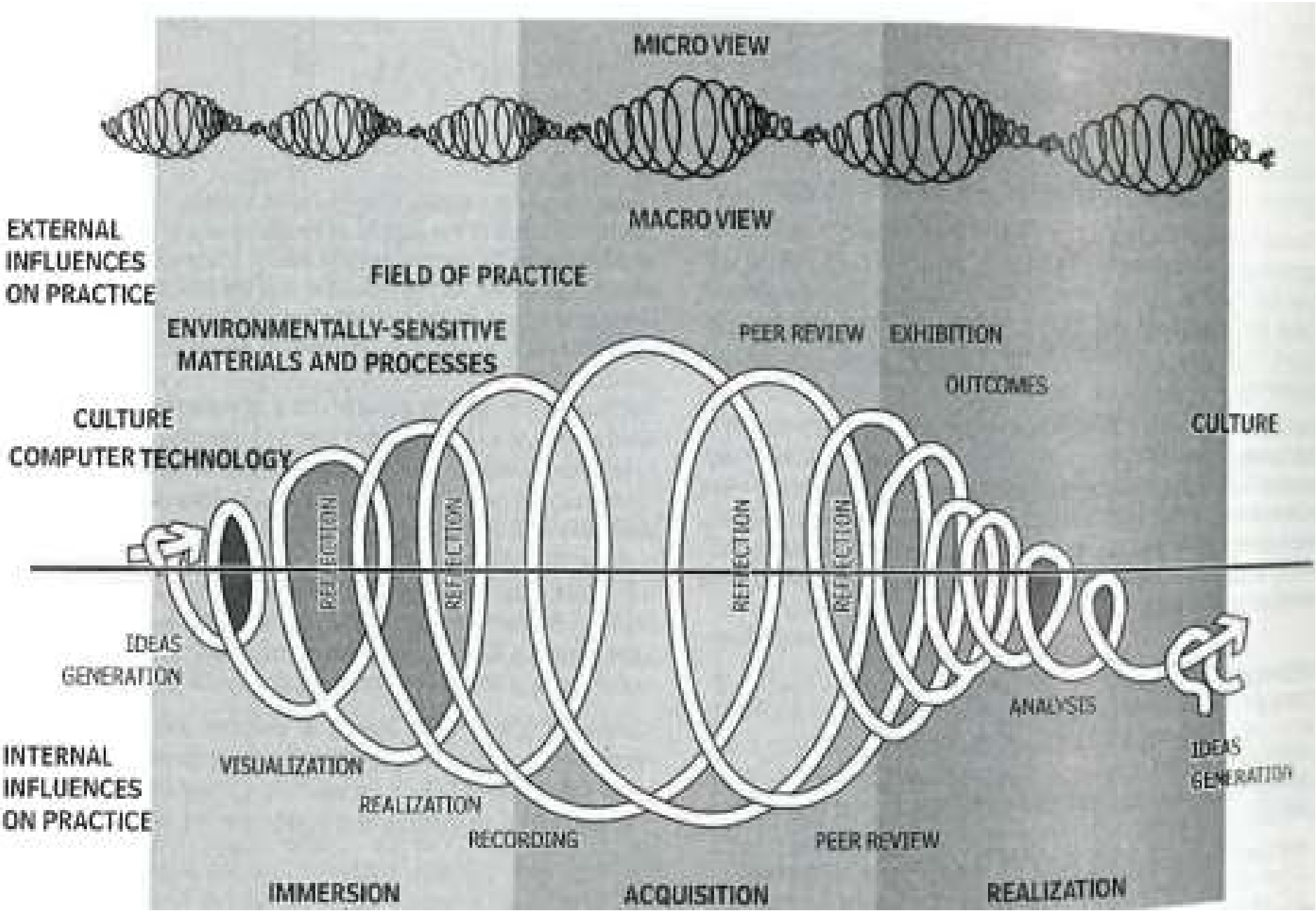
It is interested in the generally recognized practices, subjects, and themes of architecture. Architecture is a creative discipline oriented towards practice. It is engaged, creative, reflexive practice

Design Research

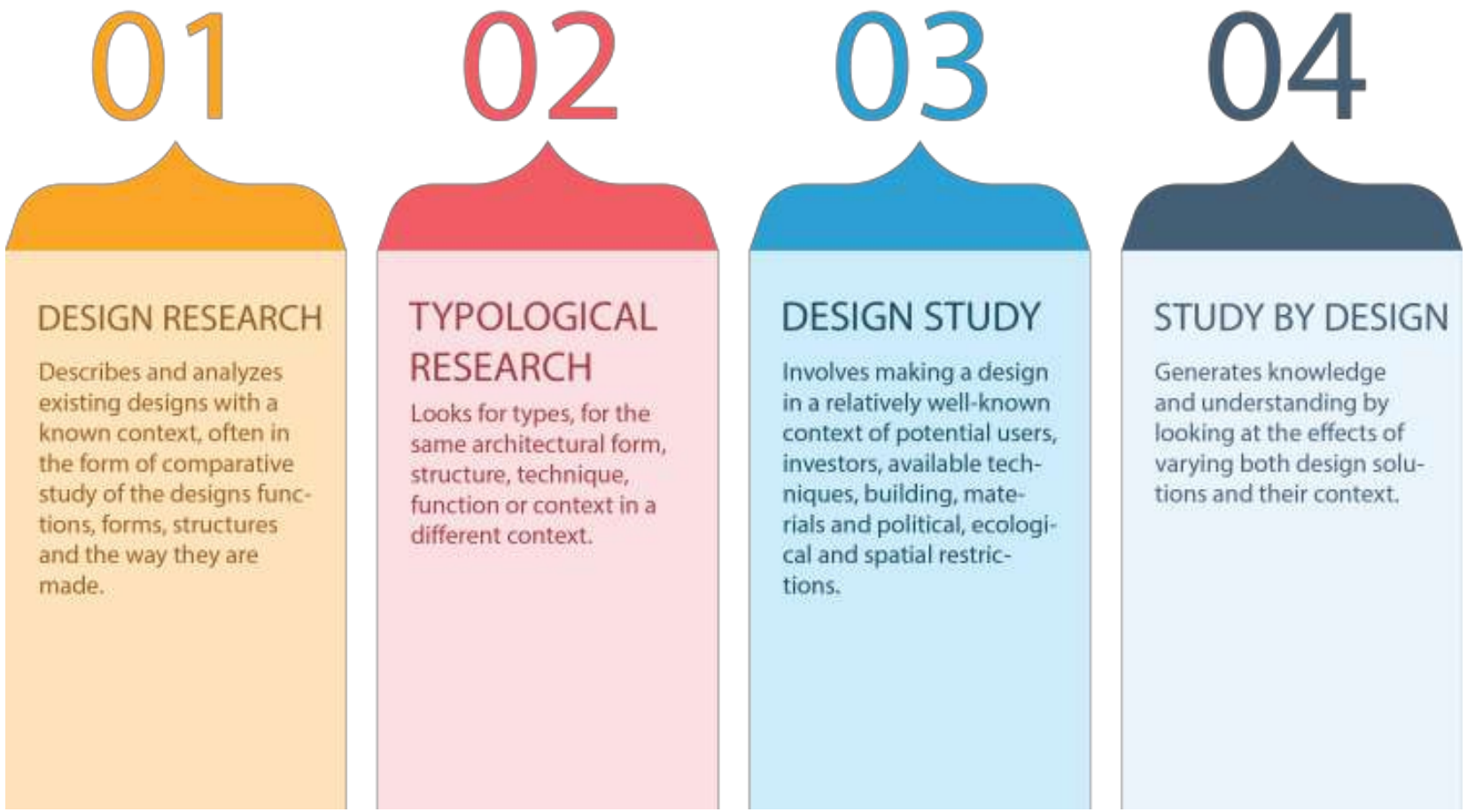
Research through design embraces **creative production**, with the design process itself as a form of **discovering new knowledge.**

The most and least understood area of architectural research involves that which works through design, which **engages design itself** and itself a **form of research.**




MICRO VIEW
MACRO VIEW
EXTERNAL INFLUENCES ON PRACTICE
FIELD OF PRACTICE
ENVIRONMENTALLY-SENSITIVE MATERIALS AND PROCESSES
CULTURE
COMPUTER TECHNOLOGY
PEER REVIEW
EXHIBITION
OUTCOMES
CULTURE
REFLECTION
REFLECTION
REFLECTION
REFLECTION
IDEAS GENERATION
ANALYSIS
IDEAS GENERATION
INTERNAL INFLUENCES ON PRACTICE
VISUALIZATION
REALIZATION
RECORDING
PEER REVIEW
IMMERSION
ACQUISITION
REALIZATION

Research through design takes different forms, depending on the project and context:

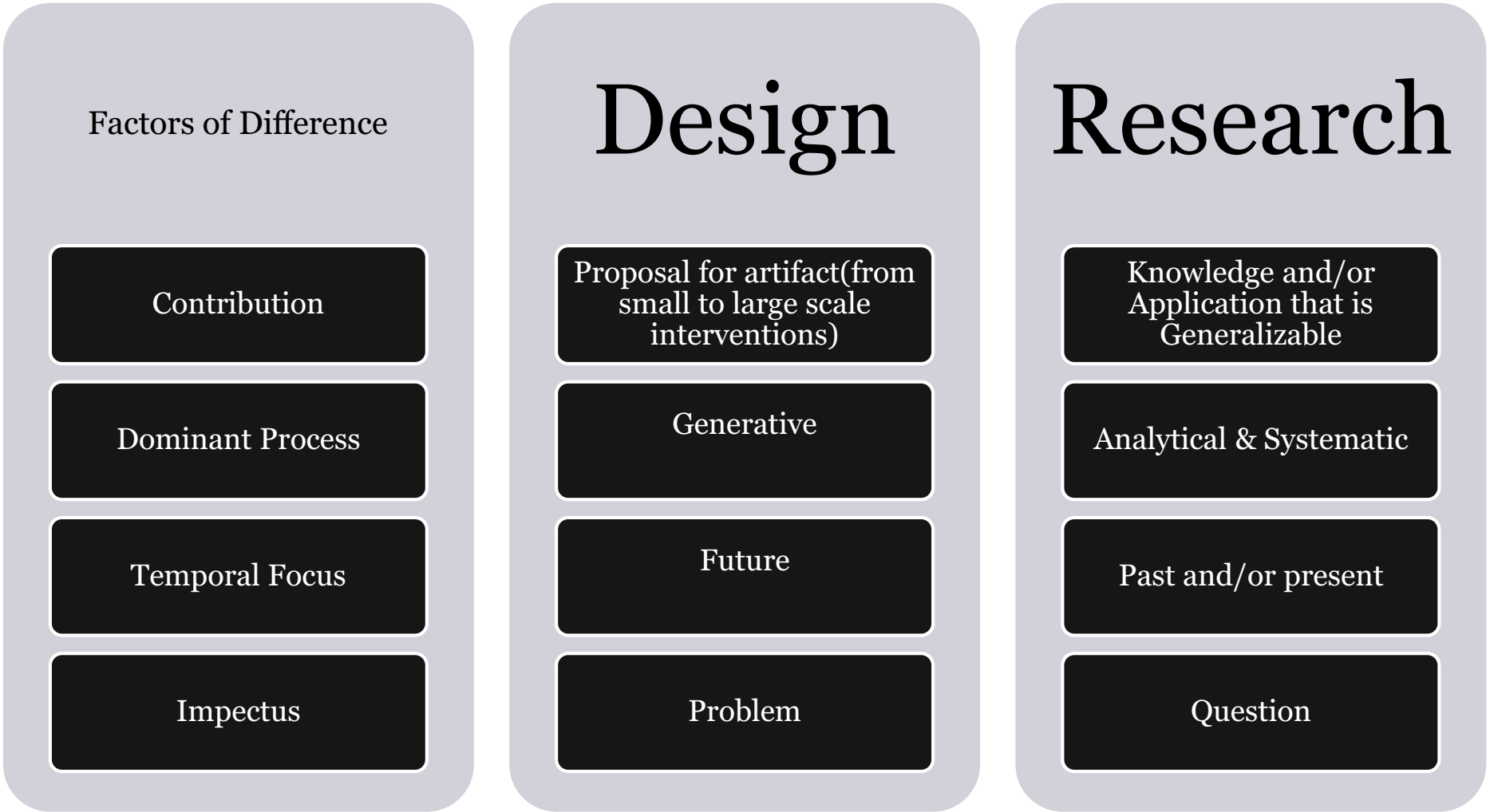


Architectural Research & Design Research:

Facets of similarity	Design	Research
Models of reconstructed logic	Systematic design process	Scientific Method
Multiple logics	Abductive Inductive Deductive	Abductive(research design/hypothesis formation) Inductive Deductive
Logics in use	Generator/conjecture model Problem/Solution	Multiple Sequences of Logics, Dependent on Research questions and purposes
Scope	Macro/micro and mid-level applied	Big/Medium/Small Theory
Social context	Situated Practice	Situated Research

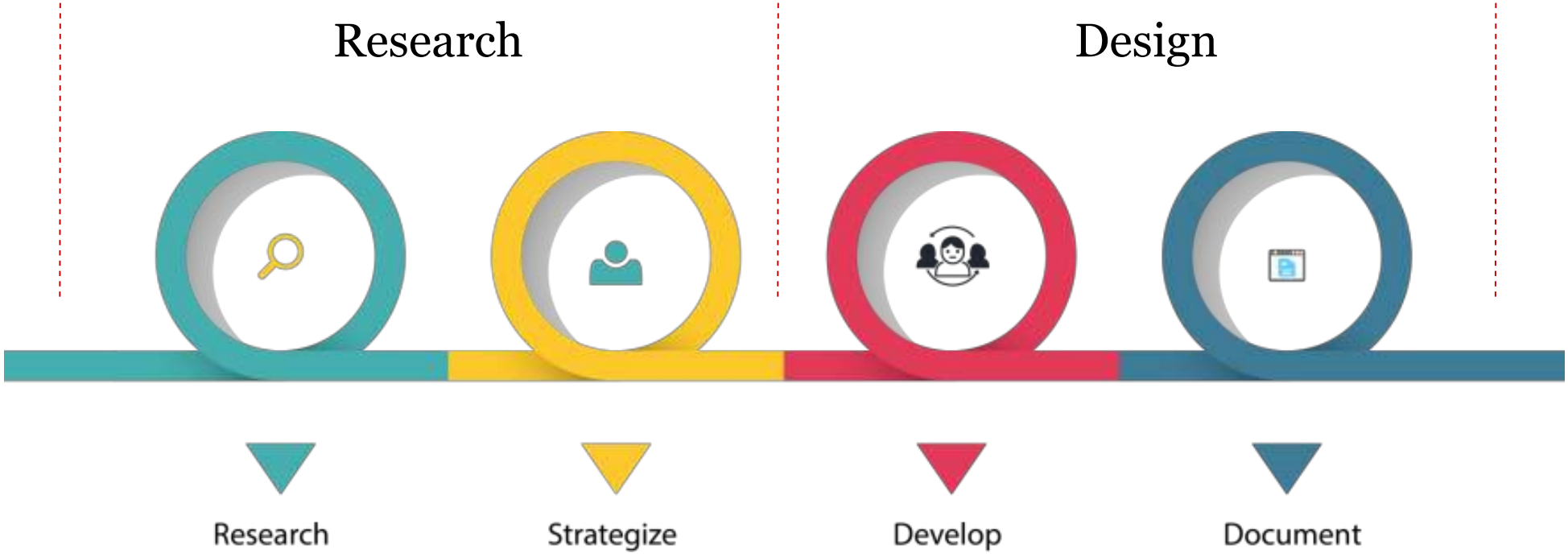
Similarity between Design & Research

Architectural Research & Design Research:



Difference between Design & Research

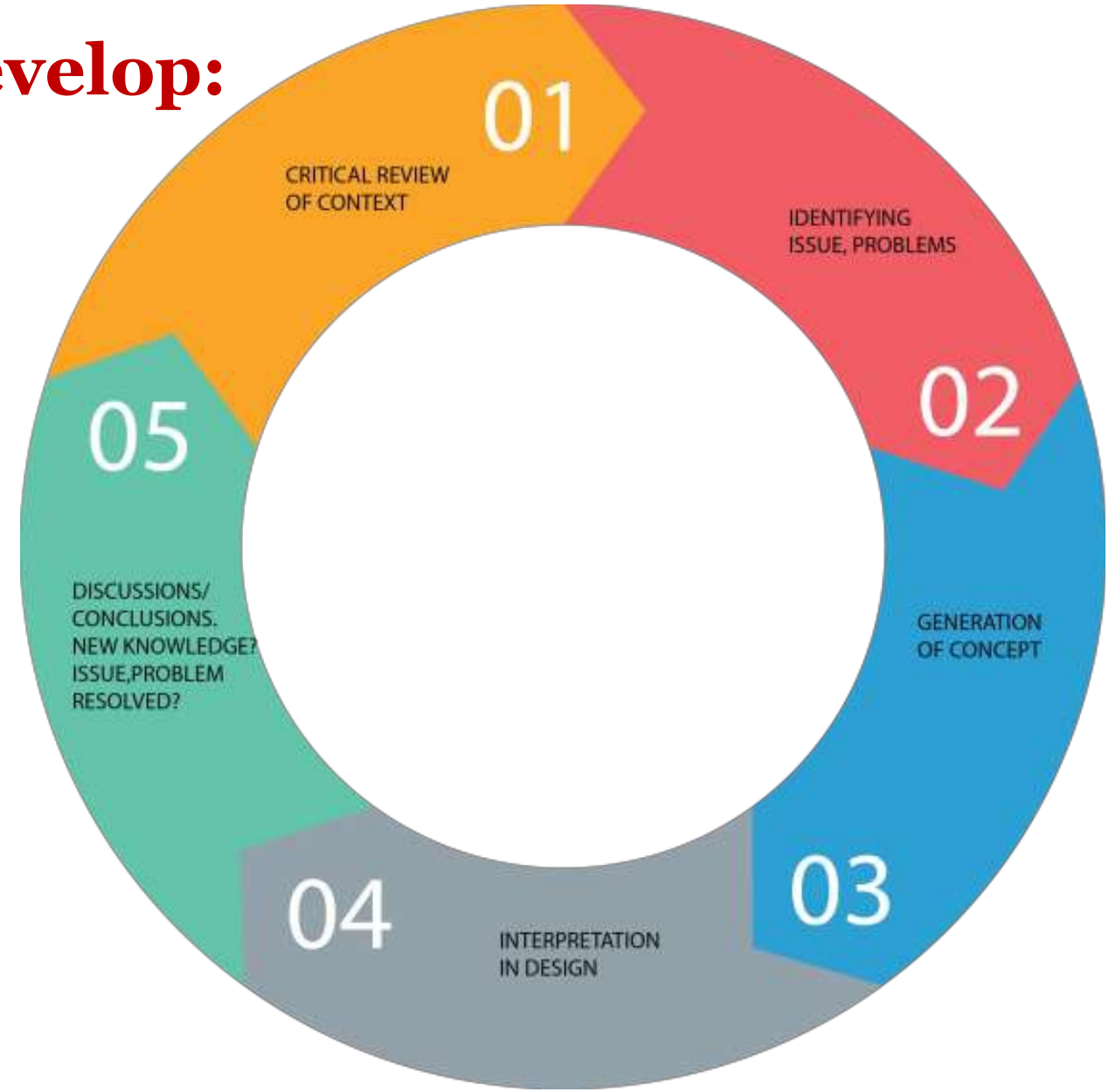
Design Research Process



1. Research & Discover:

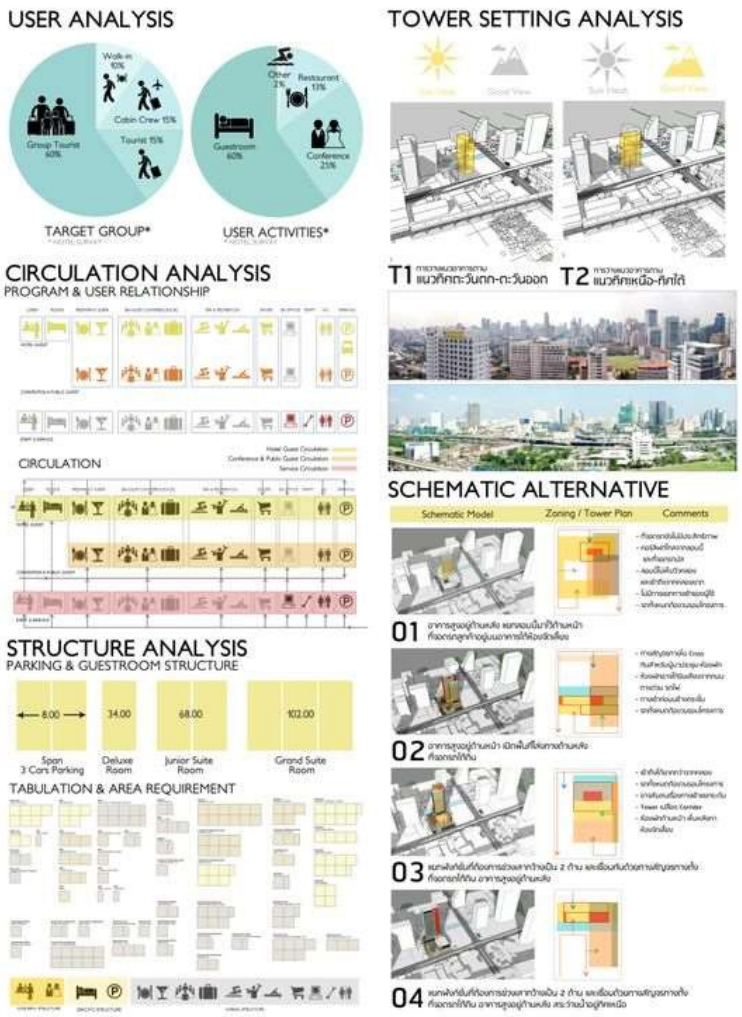
2. Strategize

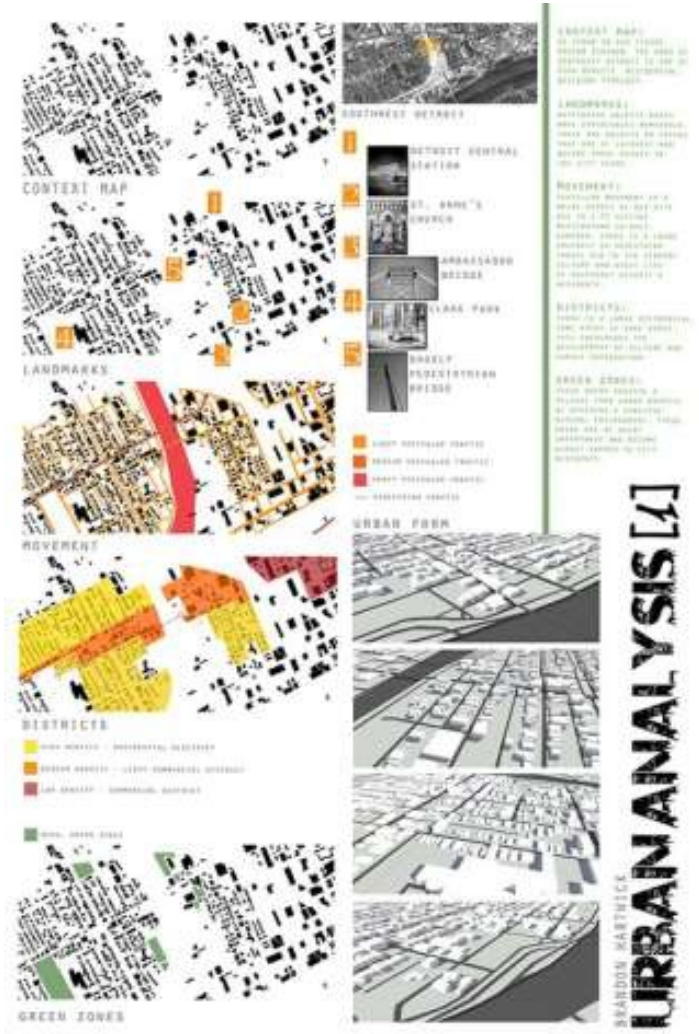
3. Develop:


01
CRITICAL REVIEW
OF CONTEXT
02
IDENTIFYING
ISSUE, PROBLEMS
03
GENERATION
OF CONCEPT
04
INTERPRETATION
IN DESIGN
05
DISCUSSIONS/
CONCLUSIONS.
NEW KNOWLEDGE?
ISSUE,PROBLEM
RESOLVED?

4. Document:

Produce the actual thesis documents describing your discoveries, insights, ideas, or assertions clearly and succinctly.





Types of Architectural Research:

*Divided by method
*Divided by content

HISTORICAL RESEARCH

- The **systematic collection of data** to explain something occurred sometimes in the past.
- **No manipulation** or control of variables - differ with experimental research.
- **Focuses** primarily on the **Past**.

The Purpose of Historical Research

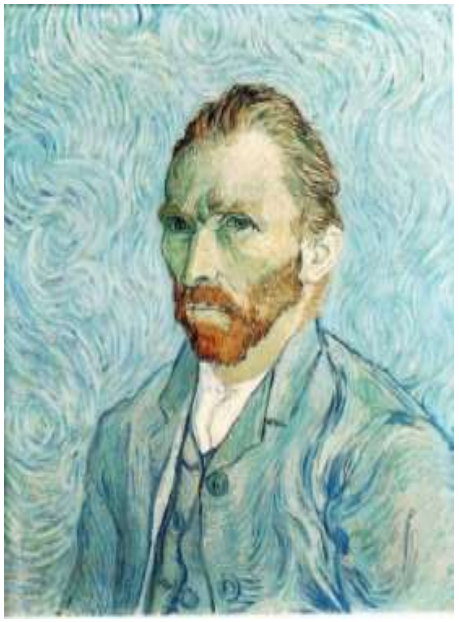
- Awareness of past
- Learn from past failures and successes.
- To test hypothesis
- To assist in prediction.

Stages of Historical Research

1. **Identify** a researchable phenomenon
2. Developing **Hypotheses**
3. Collection of **Data**
4. **Check** and **Verify**
5. Writing of the **Report**

Types of Historical Research

1. Life History
2. Autobiography Narrative
3. Oral history
4. Case Study



Historical Research

Characteristics:

- History research brings into **view something from the past**
- Interpretation
- Narrative
- The cultural turn – Multiple point of view
- The spatial turn

Tactics:

- On-site **familiarity**.
- Use of **documents**.
- **Visual** comparison
- **Material** evidence.
- Comparison with **conditions elsewhere.**
- **Local informants** and lore.
- Reenactment/**testimonial**.
- Identification of **remaining questions**.

Implementation in Design

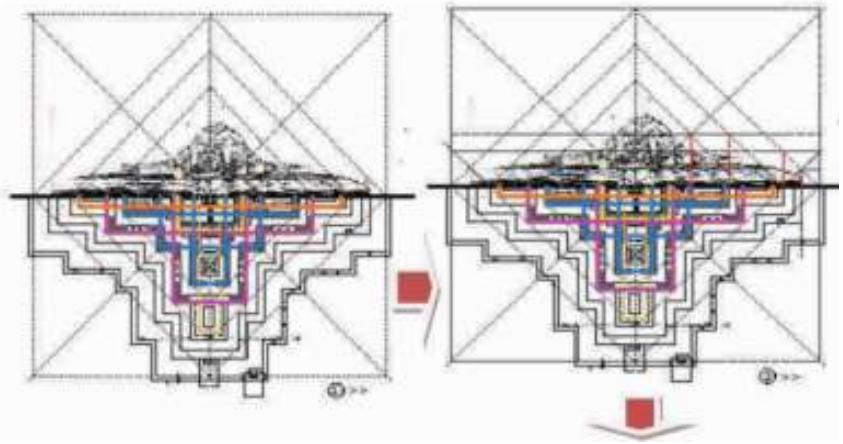
1. **Formulate an idea**
   to find the **idea** and figure out the **research question**.

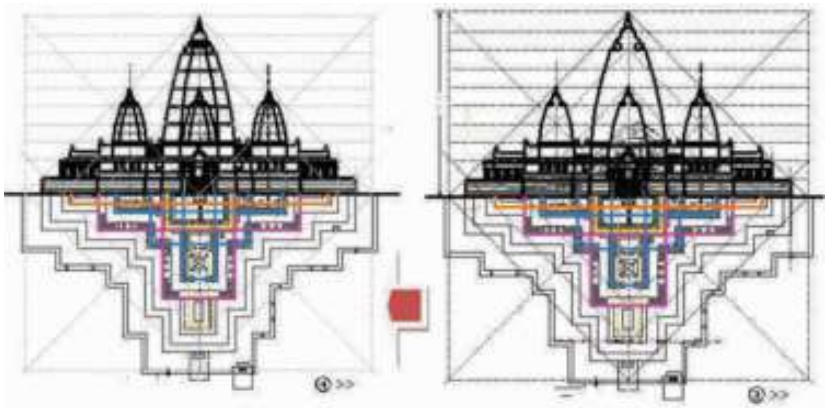
2. **Formulate a plan**
   where to **find sources** and how to **approach** them.

3. **Gather data**
   try to get **everything** that **relates** to the question.

4. **Analyze data**
   go through the collected data and try to **answer** the **question** more directly.

5. **Analyze the sources of data**
   analyze the **veracity of the data**. primary source, secondary source.





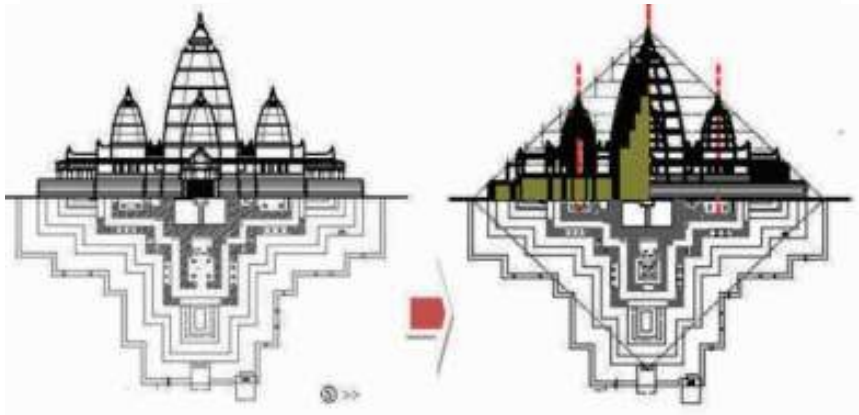


Figure 36:
Mahabodhi, 500 CE.

Figure 37:
Sarnath, 700 CE

Figure 38:
Bhitargaon, 400 CE

Figure 39:
Deogarh, 500 CE

Figure 27: Central shrine of Sompura / Paharpur vihara, 8th century CE

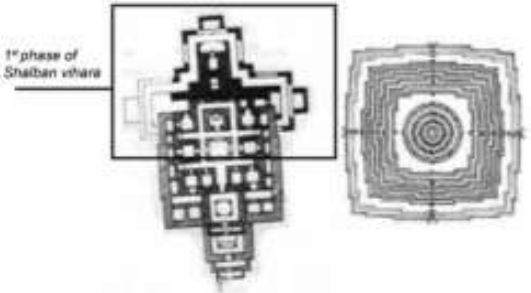
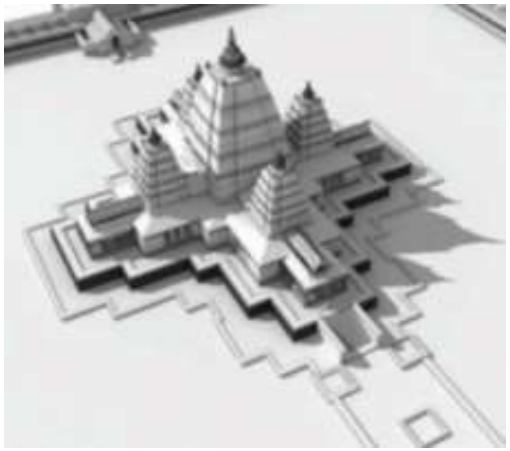


Figure 28: Central shrine of Shaiban Vihara, 7th / 8th century CE.

Figure 29: Temple of Borobudur 8th century CE.

Figure 30: Ananda Temple, Pagan 11th century CE



Strength

- **study evidence** from the **past**
- **wider range of evidence** than most other methods
- provides an **alternative** and **richer source** of information **on topics**
- **Permits the investigation** of topics

Weakness

- possibility of biasness.
- Only give a **fractional view** of the past
- Requires a **different method** and **interpretation** because of its **elusive subject matter**
- Absence of **technical terminology**
- Historians cannot agree on **generalizations**
- derived from the **surviving records**,
- depends on valuable **materials** which are **difficult to preserve**.

QUALITATIVE RESEARCH

Characteristics:

- The **natural setting is a direct source** for the research.
- Data collection is in **the form of words or pictures**.
- Special interest in the **participants' thoughts**.

Tactics:

- Interviews & Open-Ended Response Formats.
- Observations.
- Artifacts and Sites.
- Archival Documents.

Implementation in Design:

Inquiry

Source

Design Information

(Variables)

Design Outcome

Strength:

- Interpretation in particular settings, situations and conditions.
- Data rich in description.
- Concepts derives from the data itself.

Weakness:

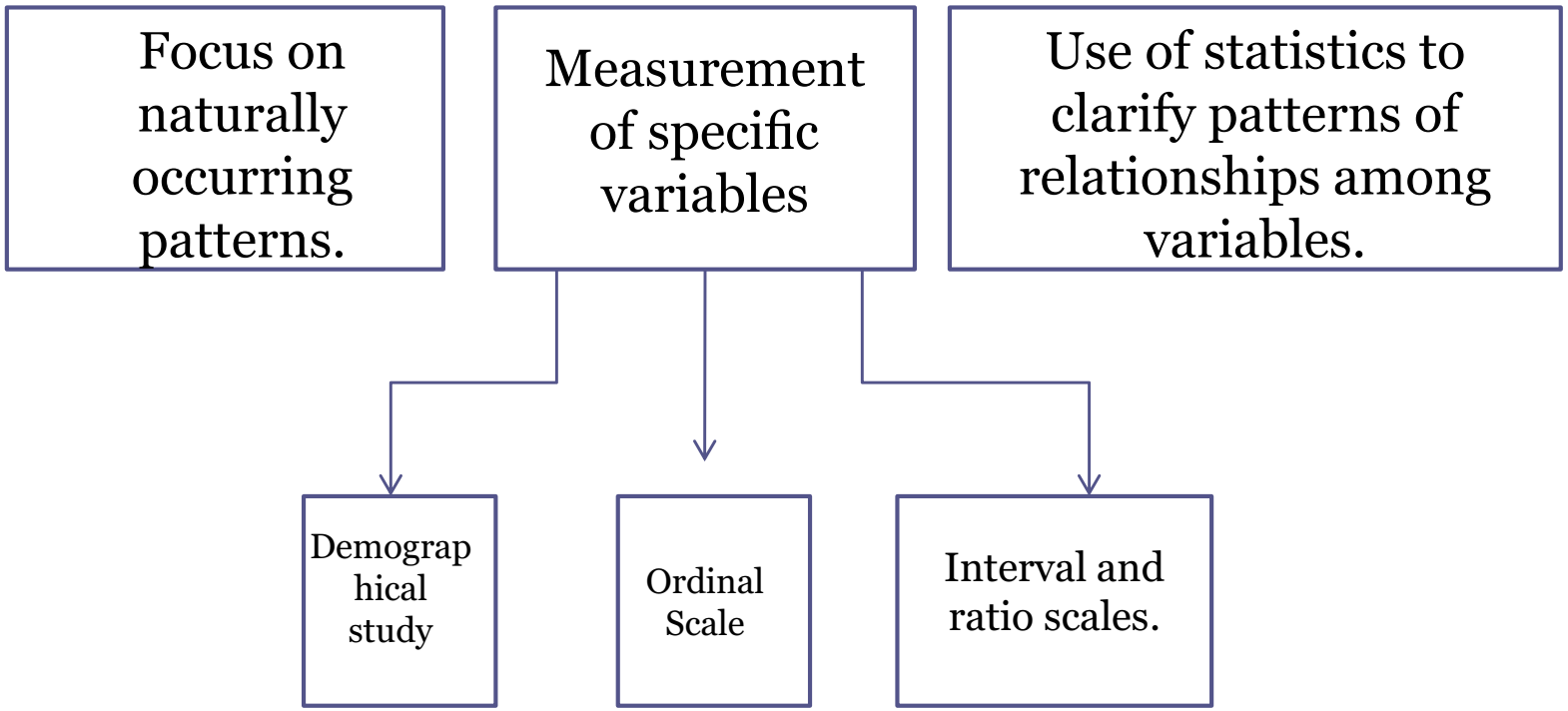
- Challenge of dealing with vast quantities of data.
- Access to samples.
- Time consuming.
- Relationship between the researcher and the participant.
- Verification.

CORRELATIONAL RESEARCH

Characteristics

- It investigates the possibility of relationships between variables
- Describes the degree to which two or more quantitative variables are related

Tactics:



Implementation in Design: