

# **Dietary Assessment Methods**

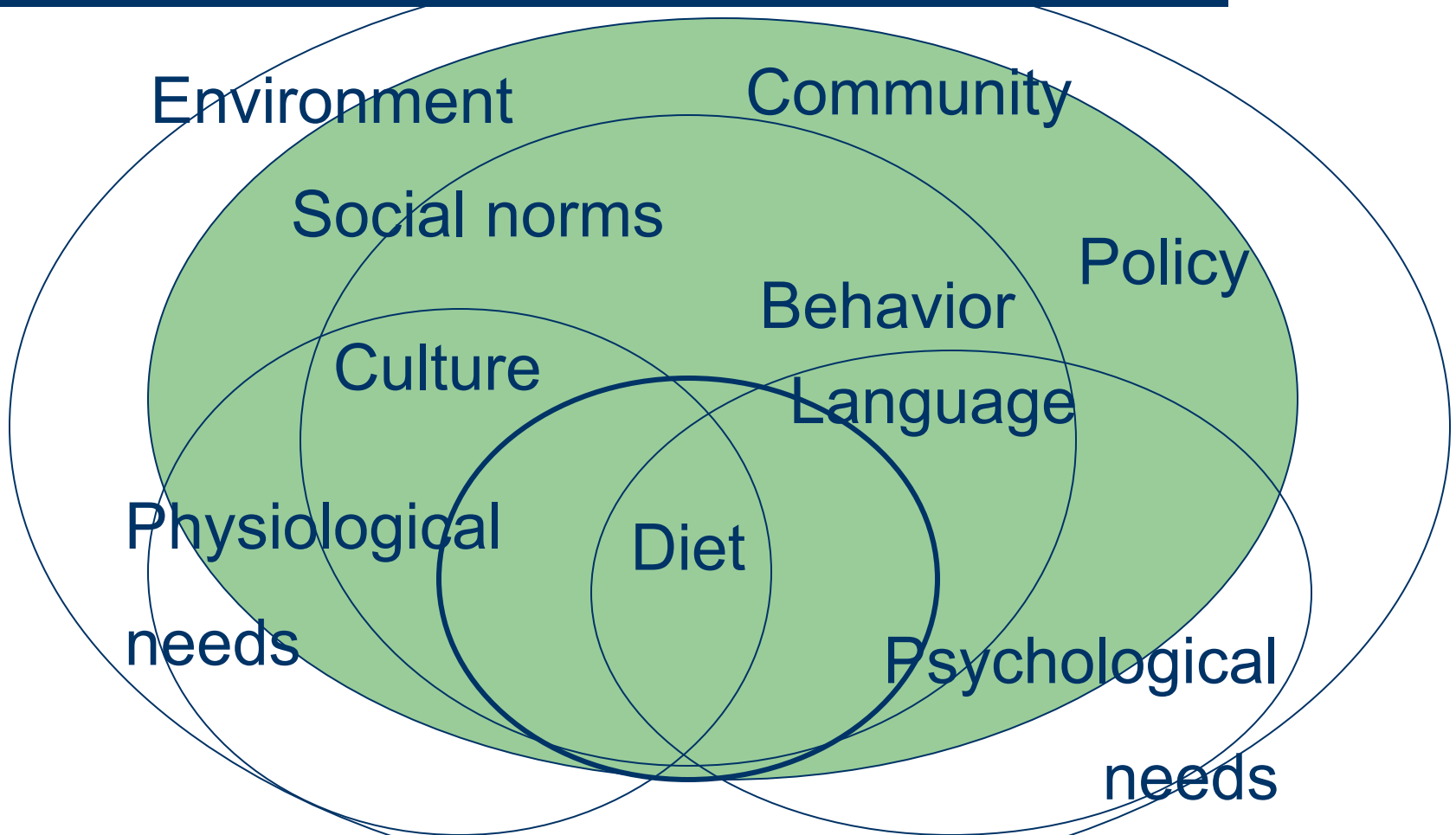
## **An Overview**

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# Context of the Diet in Human Life



# What do we know about human diet without doubts and EXACTLY?

People eat.



# Comparison of Qualitative and Quantitative Methods

	<u>Qualitative</u>	<u>Quantitative</u>
Paradigm	Construction	Objectivism
Purpose <i>Often:</i>	Exploratory	Confirmatory
Perspective	Emic (insider)	Etic (outsider)
Sample Size <i>Generally:</i>	Small	Large
Sampling methods	Purposive	Random
Units of Analysis	Words	Numbers
Strengths	Depth, context	Testing relations generalizability

# The Qualitative – Quantitative Continuum

**Qualitative**

**Quantitative**

Continuum of Structure



Unstructured interviews

Freelisting

Structured surveys

Participant observations

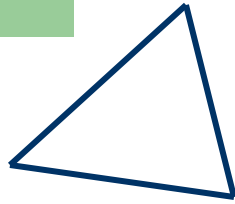
Pile Sorting

Structured

observations

Semistructured interviews,  
Focus group discussions

Open-ended  
survey questions



# Triangulation

- Triangulation means that you measure some variables more than one way, maximizing the chance for uncovering the truth
- Methods used depend on: time, research capacity, resources, beliefs...
- *Example* – Assess. of the prevalence of exclusive breastfeeding at the age 3 mos (Malawi):

All methods	Diet history	7 days rec.	24h rec.
14.1%	20.9%	31.7%	38.8%

# Approaches to Combining Methods I.

Model 1:

Qualitative method informs development of quantitative instruments



# Approaches to Combining Methods II.

Model 2:

Qualitative data help explain quantitative findings





# Approaches to Combining Methods II

Model 3:

Combined approach



# Focus Groups

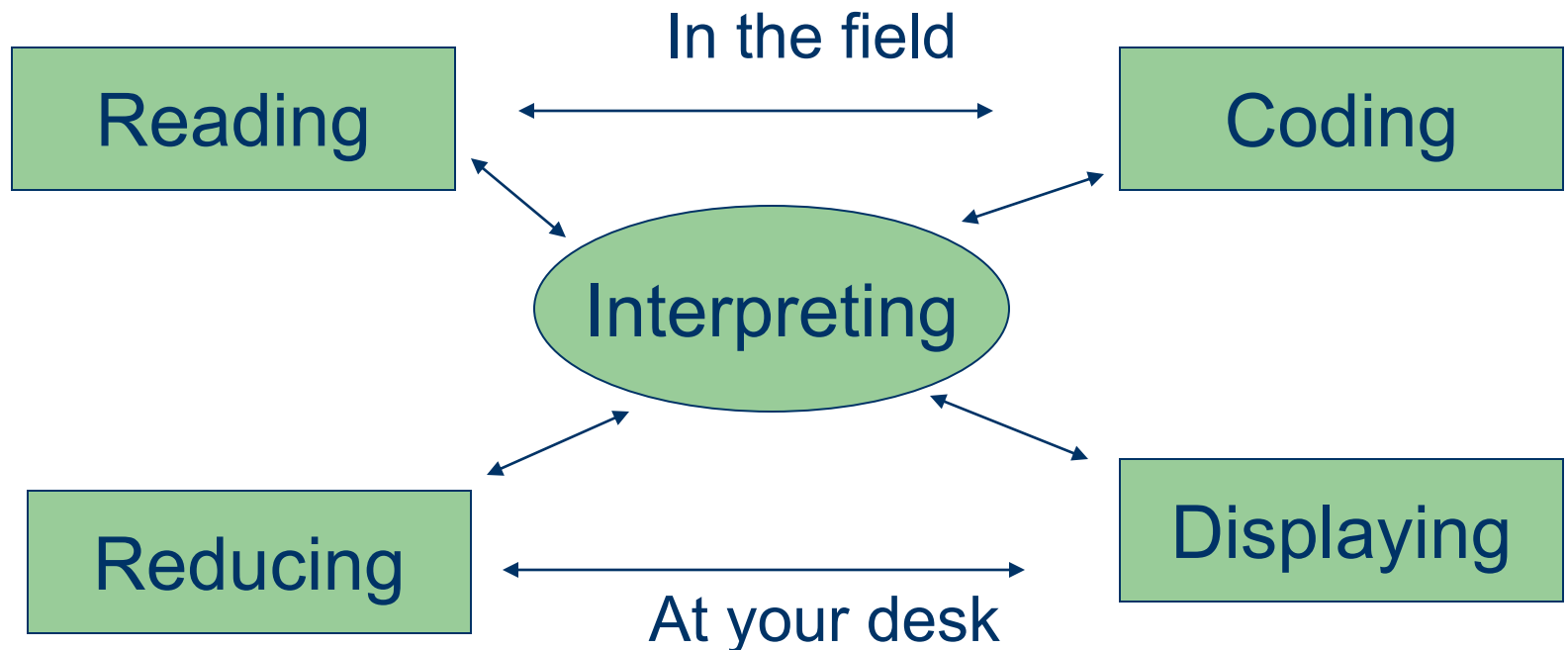
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# Semi-structured vs In-Depth Interview

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# Qualitative Data Analysis Approach

Continuous, iterative process involving the following basic components:



# Analytical Techniques

- Content Analysis
- Matrix Analysis
- Narrative Case Analysis
- Ethnographic Decision-Models
- Domain Analysis
- Multidimensional Scales
- Taxonomic Analysis

# Observational Methods

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# Quantitative Methods I.

## *Prospective*

- **Record** (3 days, 7 days)

weight, estimated

### Strengths:

More exact than recall, does not rely on memory

### Weaknesses:

Rely very much on people's compliance

Requires: literacy, responsibility, stable living conditions...

# Quantitative Methods II.

## *Prospective*

- **Household Inventory** usually 1,3,6,12 months

Strengths: exact, combine nutrit. and econom. data

Weaknesses: does not reflect individual's consumption

- **Method of Double Portions**

Strength: exact, allows detailed chemical analysis

Weakness: requires high level of compliance, stable living conditions, is expensive, causes inconvenience



# Quantitative Methods III.

## *Retrospective*

- **Recall:** usually 24 h, sometimes 3 days
  - Weight
  - Estimated (Photo book, 3D models)

Strengths: easy, quick, cheap, useful in large samples

Weaknesses: less representative, rely on memory, requires kitchen/serving literacy, not possible in children < 7 yrs

# Quantitative Methods IV.

## *Retrospective*

- **Food frequency questionnaire**

Semi-quantitative

Quantitative

Strengths:

Covers long period, not influenced by short term changes

Weaknesses: reflects more people's desire than reality, less exact, not possible in children < 7yrs

# Quantitative Analysis

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