

# A guide to: Planning a choice study



**Key concepts  
& study plan**



**Experimental  
design**



**Data collection  
& processing**



**Model specification  
& estimation**



**Interpretation  
& application**

# A guide to: Planning a choice study

## Steps in planning a choice study

1. Determine study objectives
2. Identify relevant alternatives and attributes
3. Develop data acquisition plan
4. Develop data analysis plan



Each study is different,  
some steps may not apply  
or in a different order

# Step 1 – Determine study objectives



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# Step 1 – Determine study objectives

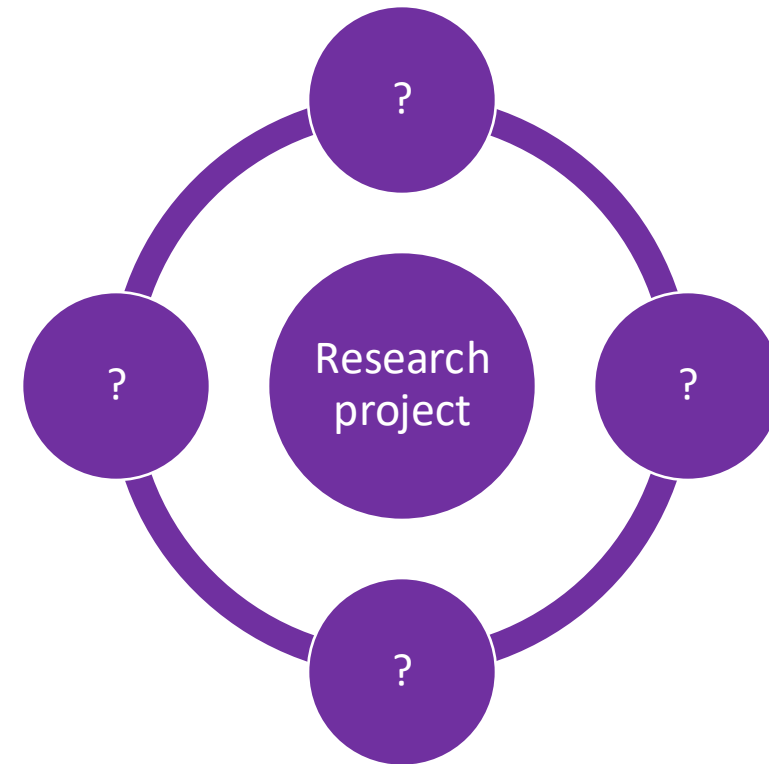
## Start with the end in mind

- ❑ Objectives of the study guide its design
- ❑ Research question determines relevant data
- ❑ Data availability often challenging
  - Pros and cons of revealed versus stated preference data need considering

# Step 1 – Determine study objectives

## What is the purpose of your research?

- ❑ Answer real-life question
- ❑ Write an academic article
- ❑ Combination of these two



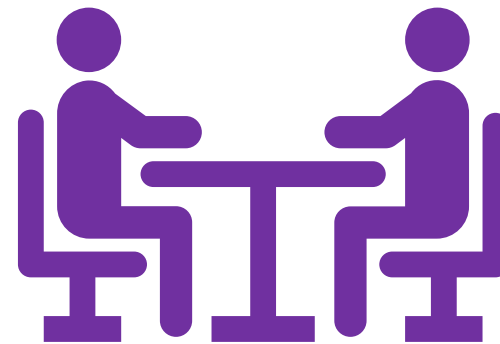
Who are your stakeholders?

# Step 1 – Determine study objectives

## Define research questions and hypotheses

Connect with stakeholders

- ❑ Interviews
- ❑ Brainstorming
- ❑ Scoping



# Step 1 – Determine study objectives

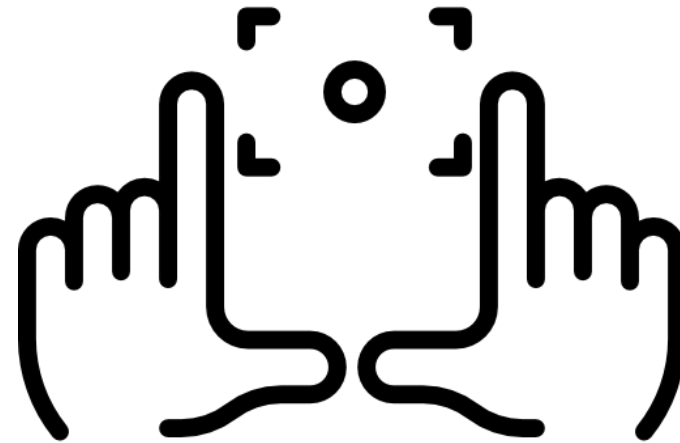
## Getting the question right!

- Is the purpose
  - Achievable
  - Actionable
  
- Who are the relevant decision-makers for the final choices?
  - Mode of transportation
  - Medical treatment

# Step 1 – Determine study objectives

## Define scope of the study

- ❑ Choice context
- ❑ Geographical area
- ❑ Population segment





# Step 1 – Determine study objectives

## Identifying study objectives can be challenging

Example project: “Preferences for AI in monitoring patients with Parkinson's disease”

- ❑ EU funded, so no clear stakeholder!
- ❑ AI is not defined properly
  - Different meaning for different stakeholders
  - Different attributes for different stakeholders
- ❑ Technology does not yet exist

# Step 1 – Determine study objectives

## Example study objectives

- ❑ Understand preferences and individual differences
- ❑ Predict demand shares in a market
- ❑ Predict uptake of a new treatment
- ❑ Implement agent behaviour in micro-simulation model
- ❑ Determine willingness to pay
- ❑ Determine maximum acceptable risk
- ❑ Conduct welfare analysis
- ❑ Decide on next steps in product development process



# Step 2 – Identify relevant alternatives and attributes



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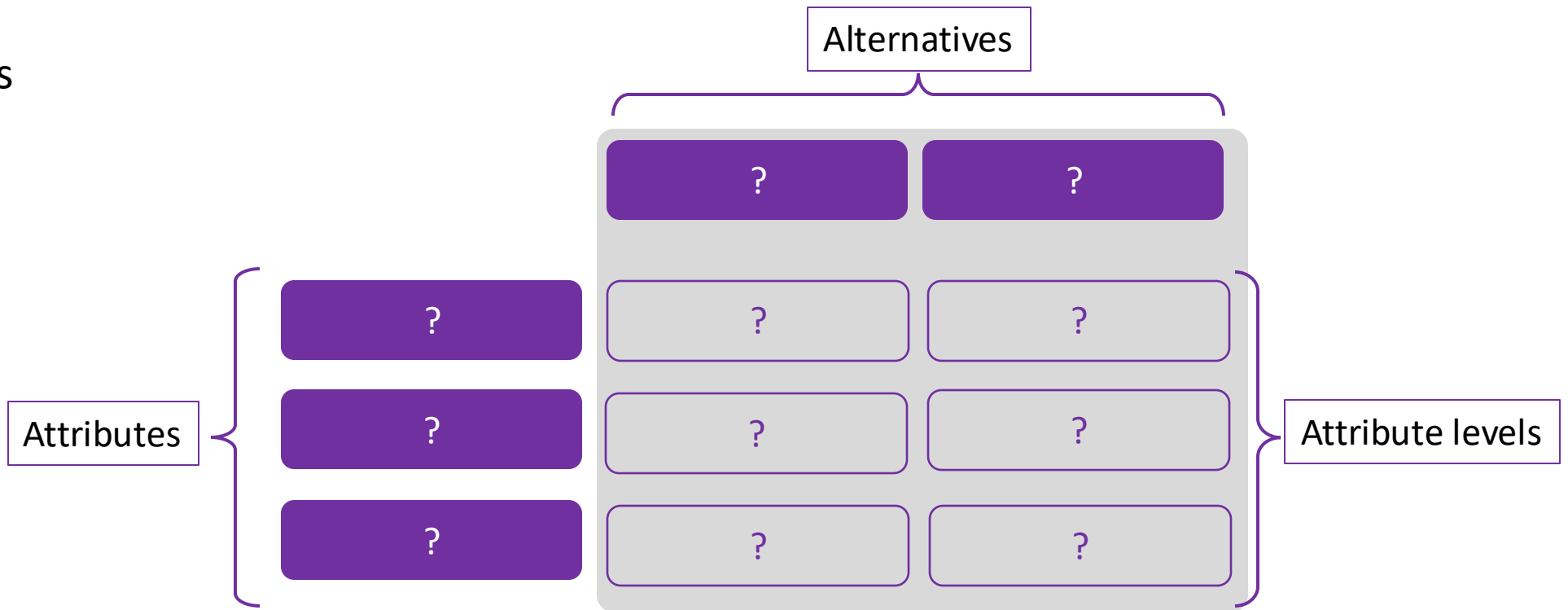


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# Step 2 – Identify relevant alternatives and attributes

## Carefully select

- ❑ Alternatives
- ❑ Attributes
- ❑ Attribute levels



# Step 2 – Identify relevant alternatives and attributes

## Use qualitative assessment methods

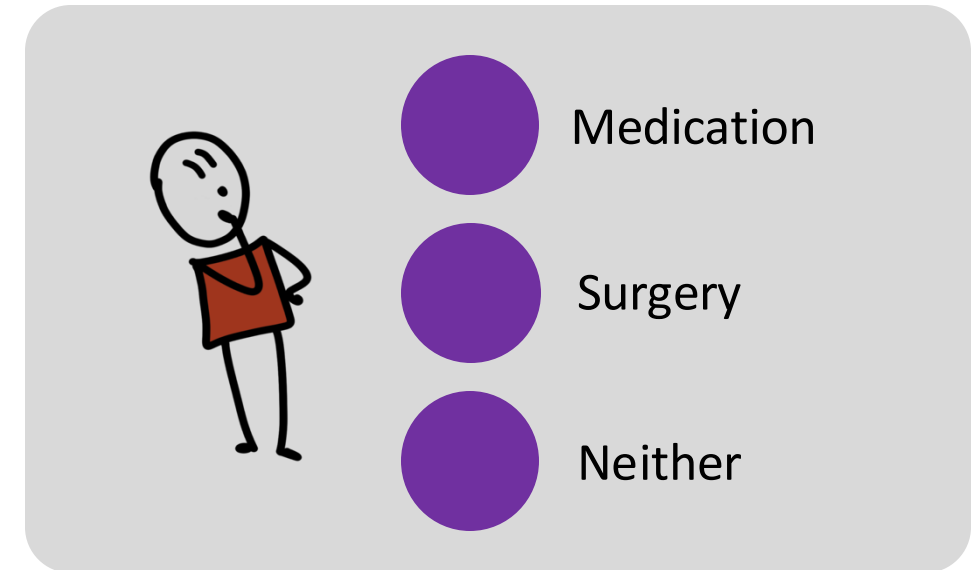


# Step 2 – Identify relevant alternatives and attributes

## Alternatives – unlabelled or labelled



Unlabelled alternatives



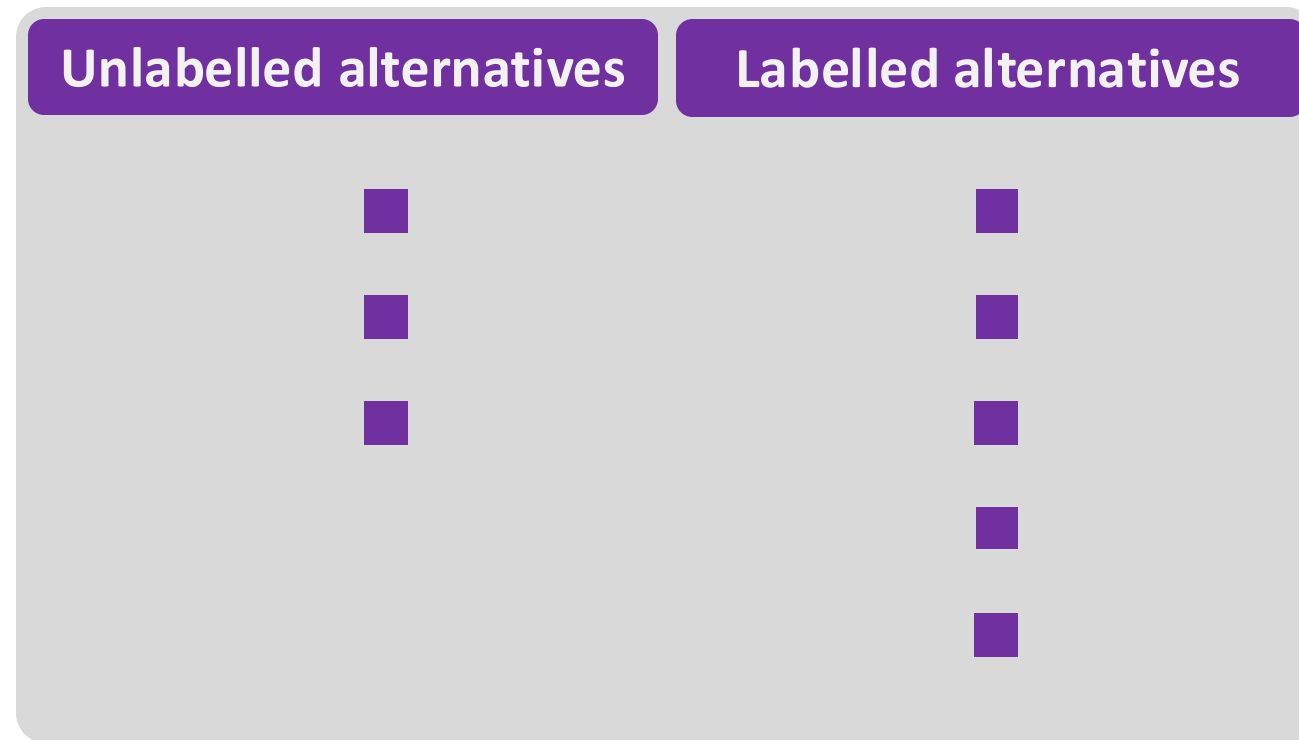
Labelled alternatives

# Step 2 – Identify relevant alternatives and attributes

## Alternatives – unlabelled or labelled

### *Relationship to study objectives*

- ❑ Relative importance of attributes
- ❑ Marginal rates of substitution (e.g., WTP)
- ❑ Sensitivity to change in attributes
- ❑ Elasticities
- ❑ Market shares, demand forecasting



# Step 3 – Develop data acquisition plan



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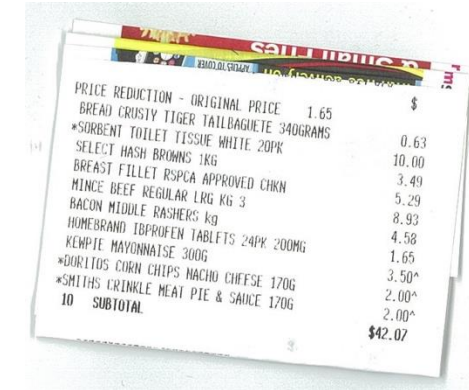


# Step 3 – Develop data acquisition plan

## Stated or revealed preference data

### Revealed preference

- Actual choices in real markets
- Availability?



### Stated preference

- Choices collected for hypothetical situations in a choice experiment
  - Validity?
- 
- ❑ Match with study objectives, alternatives, and attributes
  - ❑ Sampling strategy

Set 1 of 16:

	Barilla SPAGHETTI n°5 COTTAGE CHEESE \$0.19 per 100g	Salvo Spaghetti Cottages to 8 minutes \$0.19 per 100g	Vetta SPAGHETTI 420g \$0.35 per 100g
Which one would you be <b>MOST</b> likely to buy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which one would you be <b>LEAST</b> likely to buy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If the above three products are actually available on shelf, which of the following three statements best describes your opinions about the three products?

☐ I will buy ALL of these products  
☐ I will buy SOME but not other products  
☐ I will buy NONE of these products

# Step 4 – Develop data analysis plan



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# Step 4 – Develop data analysis plan

## Think about this in advance

- ❑ How will you use each piece of data?
- ❑ What models do you expect to estimate?
- ❑ How will results help answer your research questions and test your hypotheses?
- ❑ How will you report your results?

