

### *Hierarchy of concepts*

Research Area → Research Topic → General Research Questions → Specific Research Questions → Data Collection

### *Research Questions*

- Role
  - organise research
  - delimit research,
  - keep research focused
  - provide framework
  - identify necessary data
- Appropriate Q are specific, clear, empirical, relevant

Questions can arise from personal experience, curiosity, state of knowledge

### *Research Design*

- type of design is determined from a clearly defined research question
- specifies the approach that will be adopted to address your research question.
- Types:
  - Qualitative Design
    - interview, focus groups, observations
    - detailed results, qualitative data,
    - small sample size
    - Aim identity and explore issue in depth not generalise findings  
*i.e. why do people oppose Marriage Amendment Act – sit down/explore reason/facts*
  - Survey Design (non-experimental design)
    - Quantitative to describe occurrence of incidence
    - Quantify and describe attitudes/opinion
    - Large sample size to
    - Aim to generalise finding  
*i.e. To what extent does Australia support same sex marriage – talk about level of support*
  - Experimental Design
    - quasi experimental, 2group comparison, physical control, statistical control, btw participant, w/in
    - Attempt to determine the effect of variables on other variables
    - Control and Manipulate
    - IV (change) and DV (measure)
    - Hypothesis testing
      - hypo formulated from theory/past research
      - purpose of experiment is to test hypo (never proved= supported)

*i.e. Are females more inclined to support Marriage Act than men – determine if gender has influence on support*

## ***Sampling***

- Sample: subset of people from the population
- Population must be representative of population for sample good estimator
- sample sizes less expensive/difficult & not necessary sample whole pop if u get rep.
- researchers can only take people who volunteer/agree participate
- Types: Probability and Non-Probability Sampling

### **Probability**

- best way achieve representative sample = sample randomly achieved through probability sampling bc everyone has equal probability to be selected

#### **1. Simple random sampling**

- each member has equal probability of being chosen
- List of people in available population are assigned number
- Sample of numbers are randomly selected
- i.e. choosing name out of hat/computer random selection

#### **2. Systematic random sampling ( interval sampling)**

- List of people in available population are assigned number
- A sample interval is chosen (every 10<sup>th</sup> name)
- Select same from list using sample interval
- i.e. every 10<sup>th</sup> name in phonebook

#### **3. Cluster sampling**

- when members of population naturally fall into groups (university)
- random select the groups (10/20 schools)
- Randomly select members from those groups

#### **4. Stratified sampling**

- researcher divides population into separate groups/clusters (strata) (law students)
- Get total numbers of members in each cluster ( ensure proportion is same)
- probability sample is drawn from each group using either simple/systematic sampling

*i.e. organise pop into police rank and randomly select people from e/rank*

### **Non- Probability**

- problem is have to take whoever/ people reasons/motive for participants in surveys

#### **1. Convenience**

- subjects are selected due to convenience, accessibility, proximity to researcher
- Easier to recruit for the study

*i.e. using student volunteers/ stand in shopping mall and asks shopper to complete survey*

#### **2. Purposive**

- used when want access a particular subset of people, as all participants of a study are selected because they fit a particular profile.

- researchers rely on their own judgment when choosing members of the population to participate in their study.
- researchers need prior knowledge about purpose of their studies so that they can properly choose and approach eligible participants.
- Reject people who don't fit profile and accept those who are of interest  
study on why high school students choose community college over univ – approach high school students ask Are you planning to attend college? and excluded those who say no

### 3. Snowball

- Where participants are difficult to find
- participants recruit other participants into study
- Steps
  - identify potential subjects
  - ask them to recruit other people
  - repeat until find needed sample size