

# Online-Sampling quantitative & qualitative

Probability Samples  
Nonprobability Samples

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Philip Sinner, M.A.  
Dept. Communication Studies | University of Salzburg, Austria



# Probability Samples I

- Representative or Random-Sample
  - Purest form of probability sampling
  - Each member of the population has an equal and known chance of being selected
  - In case of very large populations, it is often difficult or impossible to identify every member of the population
  - The pool of available subjects becomes biased
  - A large number of participants is needed to minimize error deviation
- **Online we don't know the whole population**
- **Impossibility of representative online-sampling**

# Probability Samples II

- Stratified-Sample (see also Quota-Sample)
  - Privileged to random-samples, reduces sampling error
  - A stratum is a subset of the population that share at least one common characteristic, e.g. male and female
  - The researcher first identifies the relevant strata and their actual representation in the population
  - Later on random sampling is used to select a sufficient number of subjects from each stratum
  - "Sufficient" refers to a sample size large enough for us to be reasonably confident that the stratum represents the population
  - Stratified sampling is often used when one or more of the strata in the population have a low incidence relative to the other strata

# Probability Samples III

- Systematic-Sample
  - Is often used instead of random sampling
  - Also called an „Nth name selection technique“
  - After the required sample size has been calculated, every Nth record is selected from a list of population members
  - Systematic sampling is frequently used to select a specified number of records from ...
    - a known computer file
    - a closed Facebook-Group
    - a limited and known number of Twitter-Accounts
    - a Panel-Population
    - etc

# Nonprobability Samples I

- Convenience-Sample
  - Is often used in exploratory or preliminary research
  - Inexpensive way to get a first insight into a new field
  - Only significant for the respective persons
  
- Often used as a Self-Selective Sample
  - Questionnaire sent out via e-mail to a huge number
  - Questionnaire on publicly accessible Facebook-Pages
  - Call in a certain group or forum
  - etc.

# Nonprobability Samples II

- Quota-Sample (see also Stratified-Sample)
  - The nonprobability equivalent of stratified sampling
  - The researcher has also to identify the strata and their proportions as they are represented in the population
  - Later on convenience or judgment sampling is used to select the required number of subjects from each stratum
- May be combined with a sampling questionnaire to define subjects to be selected for the strata

# Nonprobability Samples III

- Snowball-Sample
  - Often used for exploratory research
  - Also used, when a desired sample characteristic is known to be rare
  - It may be extremely difficult or cost prohibitive to locate respondents in the needed situations
  - It is based on referrals from initial subjects to generate additional subjects
  - Initial subjects have to be selected carefully and well-considered
  - This sample is inappropriate to represent a good cross section from the population
  - But it might be very useful to research special or closed groups

# Nonprobability Samples IV

- Judgment-Sample
  - This is still the most common nonprobability method
  - The researcher him/herself selects the sample based on judgment
    - This judgment should be based on knowledge about the population,
    - or theoretical or thematic based selection criteria
  - This method is inappropriate to generate a representative sample,
  - nevertheless it might be useful to gather meaningful information
  - This method may or should be combined with additional selection methods

# Method Combination in the Selection Process

- Impossibility of representative online-sampling makes it necessary to think about additional ways to generate significant samples when conducting online-research
- These methods should be able to be combined with the methods referred in a more general way
- Missing knowledge about the population has to be considered as problematic linked with online-research
- Options might be ...
  - restricted populations (to foster liability)
  - screening processes (e.g. questionnaires) to discover and structure the population
  - **Usage of researched contents/objects (media repertoires) to serve as a basis for convenience or judgment sampling**

# An example from current research

## Social Media and Bundesliga

- RQ: *How do fans and interested persons make use of the social media offerings of soccer-clubs in the German Bundesliga?*
- 1. Sampling of all existent social media offerings of a certain number of clubs (36, complete survey of 1<sup>st</sup> and 2<sup>nd</sup> league) and the respective amount of fans, followers etc. (standardized -1 to +1)
- 2. Hierarchical cluster analysis for 1<sup>st</sup> and 2<sup>nd</sup> league to build groups of clubs, based on their repertoire of offerings and the respective usage
- 3. Sampling of typical cases (clubs) representing the various cluster
- 4. Call for participation in a qualitative survey in certain social media offerings of the respective clubs – strict selection criteria
- 5. (Later on a questionnaire will be distributed via the Facebook-pages of all 36 clubs. Aim is to gather information about usage concerning the population of all Facebook-user in the Bundesliga –convenience)