

### Main preoccupation of Quant scearch 1. Concern with Measurement 2. Concern with causality "Quantitative researchers are rarely concerned merely to describe how things are [emphasis added], but are keen to say why things are the way they are" (Bryman, 2012: 175). E.g., not just describe how much racial discrimination exists or who (in a population holds it) but why does it exist or what causes it.

• It's because the arguments/model is derived from *natural science* tradition.

#### 3. Concern with Generalisation

- findings can be generalized beyond the confines of the particular context in which the research was conducted.
- Given that it is rarely feasible to send questionnaires to or interview whole populations, it is necessary to **sample**, which is **as representative as possible** to state that the obtained results from the survey/experiment are not unique to the people studied but to the larger pool (**population**) that make up the sample.

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# Main preoccupation of Quant research

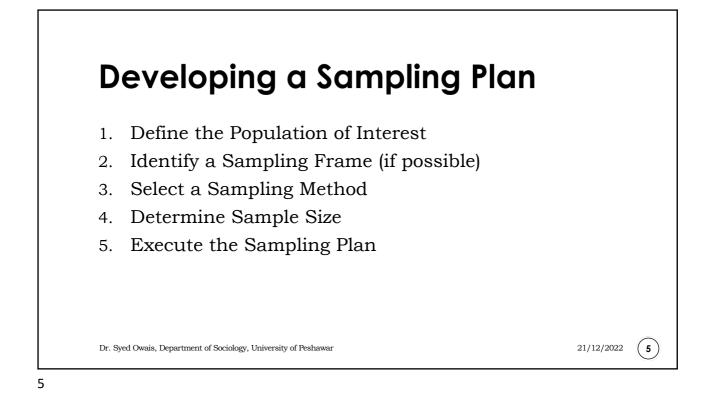
### 4. Replicability

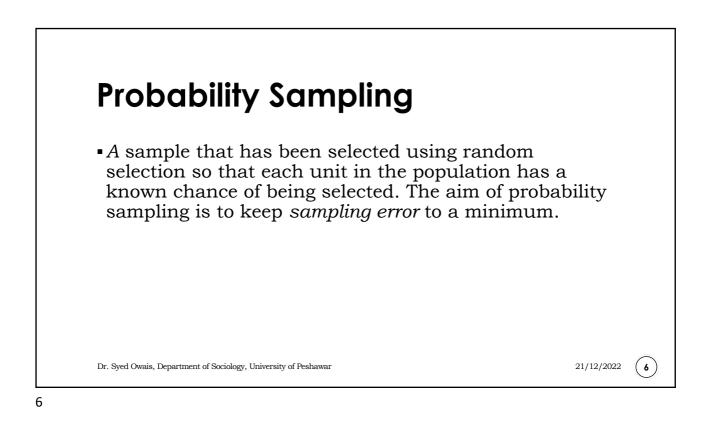
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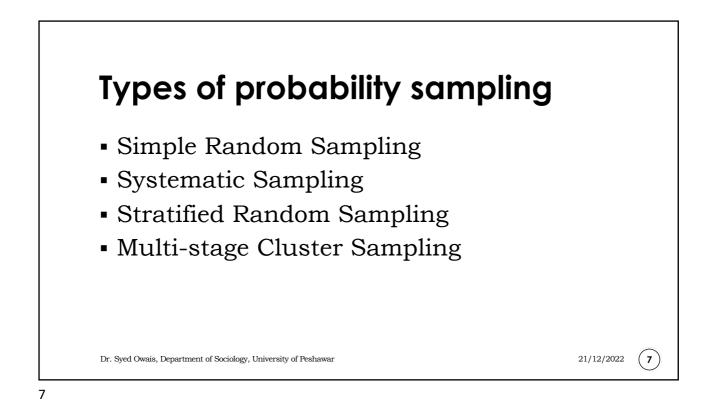
- natural sciences aim to reduce to a minimum the contaminating influence of the scientist's biases and values.
  - To check the influence of potentially damaging problems, scientists may seek to replicate—that is, to reproduce—each other's experiments.
- Consequently, it is often regarded as important that the researcher spells out clearly his or her procedures so that they can be replicated by others, even if the research does not end up being replicated.

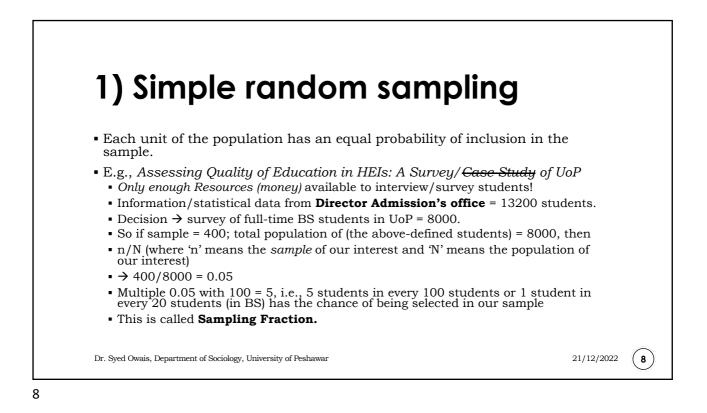
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Sampling: some central concepts • **Population:** the universe of units from which the sample is to be selected. • Units = people, nations, cities, regions, firms, newspapers, etc. • **Sample:** the segment of the population that is selected for investigation. It is a subset of the population. The method of selection may be based on a probability or a non-probability approach. • Sampling frame: the listing of all units in the population from which the sample will be selected. E.g., school records, telephone director, directory from cell-phone operators etc. • *Representative sample*: a sample that reflects the population accurately so that it is a microcosm of the population. 21/12/2022 (4 Dr. Syed Owais, Department of Sociology, University of Peshawar 4









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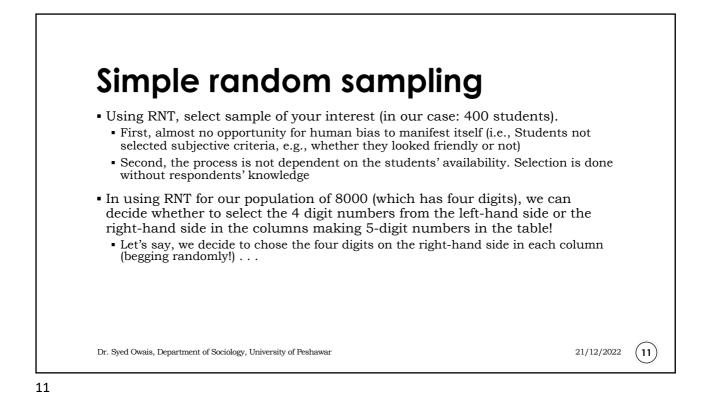


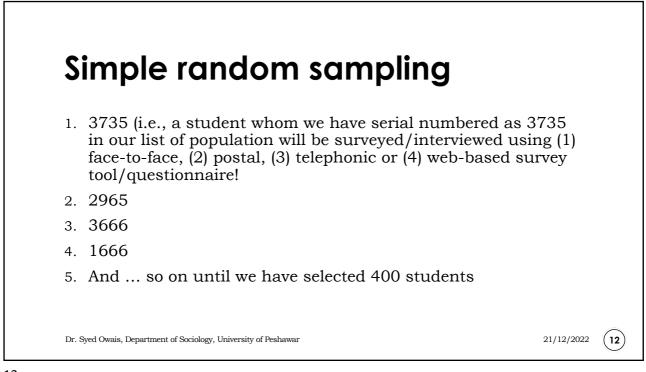
- Define **population** of interest (in our case: 8000)
- Select/devise **sampling frame** (students' record from director admissions, controller of examinations etc. or your own collection of students records from each department in the Uni)
- Decide **sample size** (in our case: 400)
- List all the units (students) in population B (in our case: 1 to 8000).
- Use **random numbers table (RNT)** (see below) or use a computer programme to generate random numbers for you.

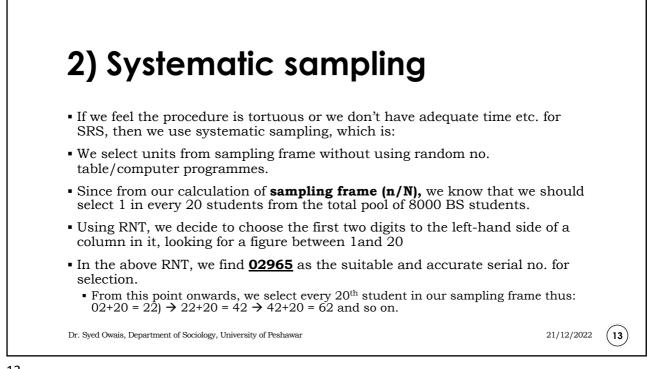
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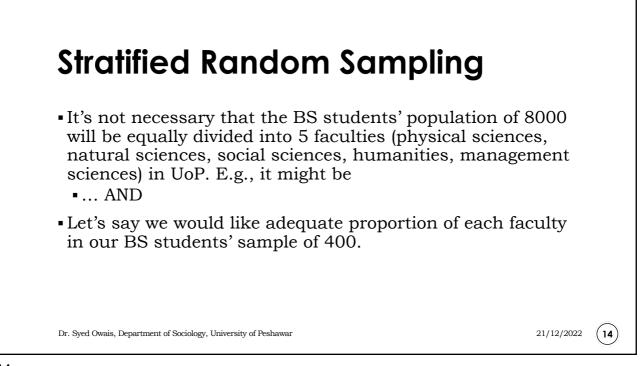
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81666	26440	20422	05720	
				statistics textbooks
15838	47174	76866	14330	
89793	34378	08730	56522	
78155	22466	81978	57323	
16381	66207	11698	99314	
75002	80827	53867	37797	
99982	27601	62686	44711	
84543	87442	50033	14021	
77757	54043	46176	42391	
80871	32792	87989	72248	
30500	28220	12444	71840	











## Stratified random sample

faculty	BS students in faculty	Stratified sample required
Arts & Humanities	800	(if 1 in 20, then) 40 (in 800)
Social Sciences	1800	90
Physical sciences	2200	110
Natural science	3000	150
Management sciences	200	10
Total	8000	400 sample

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