

Week-02-L-05

Statistics for Agriculturists

Errors in Sampling

Prof. J. Ramkumar
Department of ME & Design
Indian Institute of Technology Kanpur



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Sampling Error

A sampling error occurs when the sample used in the study is not representative of the whole population.



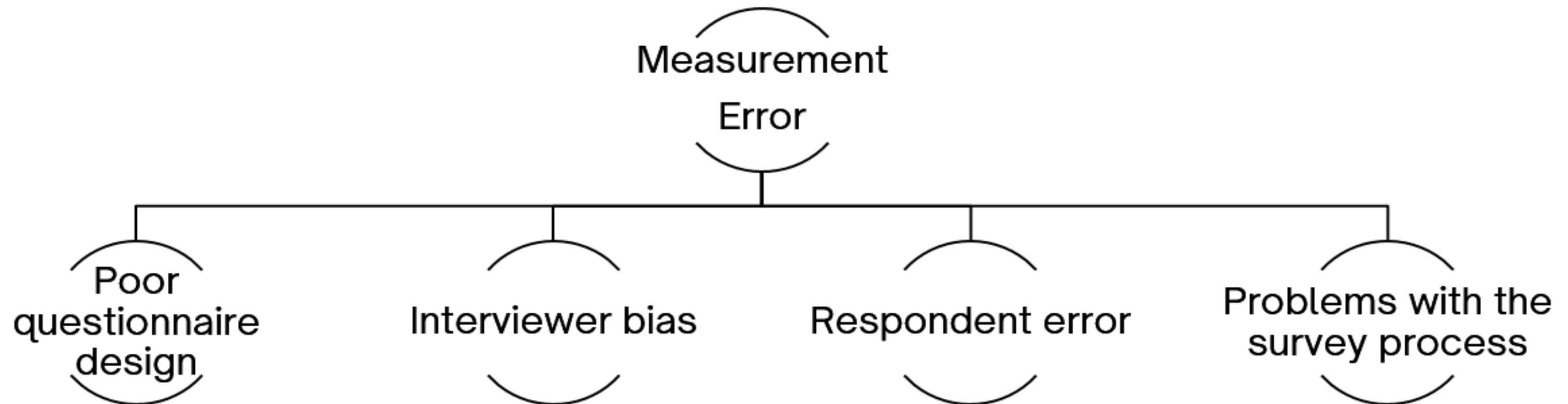
Measurement Error



Also, called **response error**, it's the difference between measured values and true values.

It consists of bias and variance, and it results when data are incorrectly requested, provided, received or recorded.

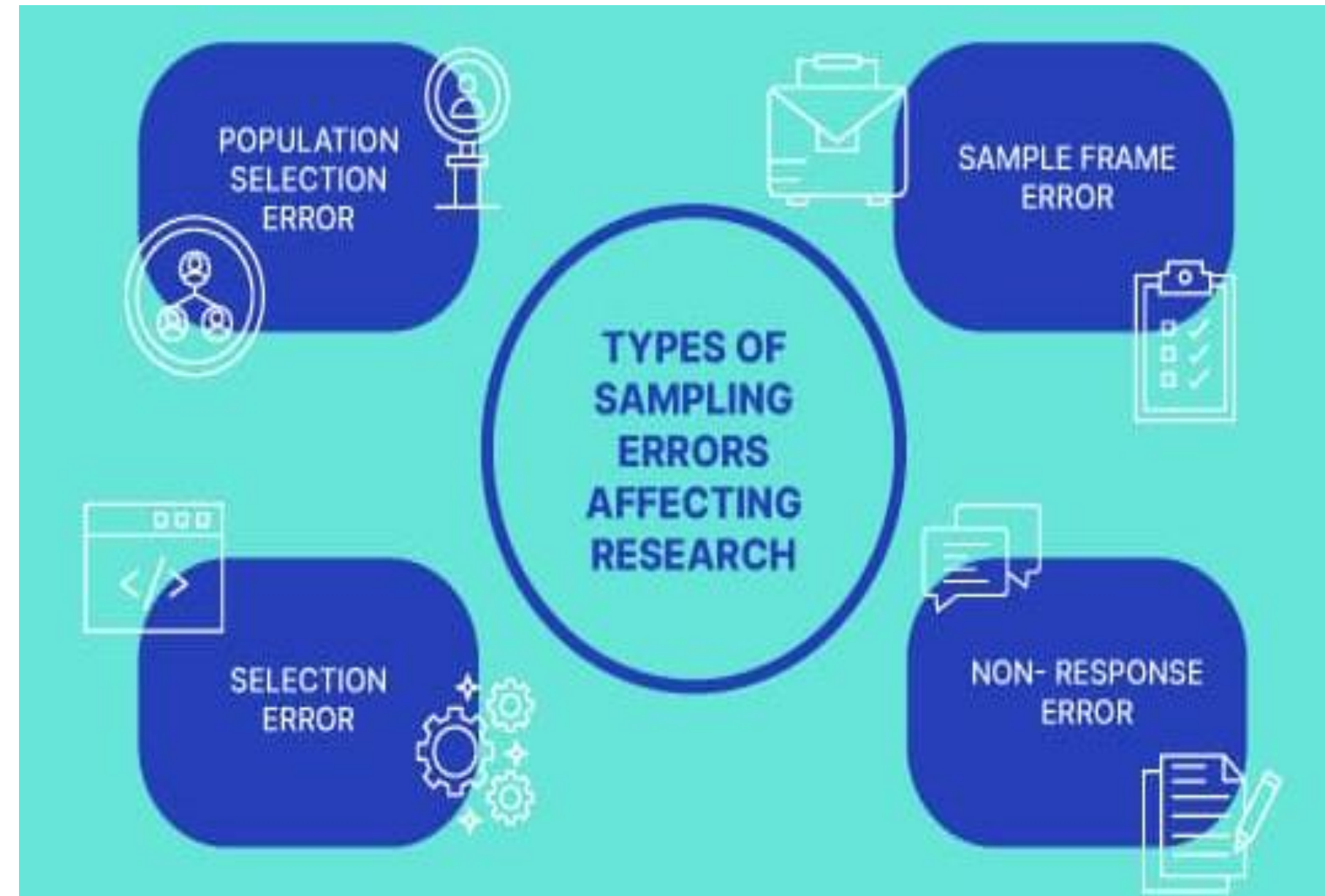
These errors may occur because of inefficiencies with the questionnaire, the interviewer, the respondent or the survey process.



Causes of errors due to sampling

1. Population specification error
(approaching incorrect person or field)

2. Sample frame error
(approaching incorrect sub-population)



Causes of errors due to sampling



3. Selection error

Selection error is like having a self-invited impurity in your drink. You don't want it, but it comes anyway.

4. Sampling errors

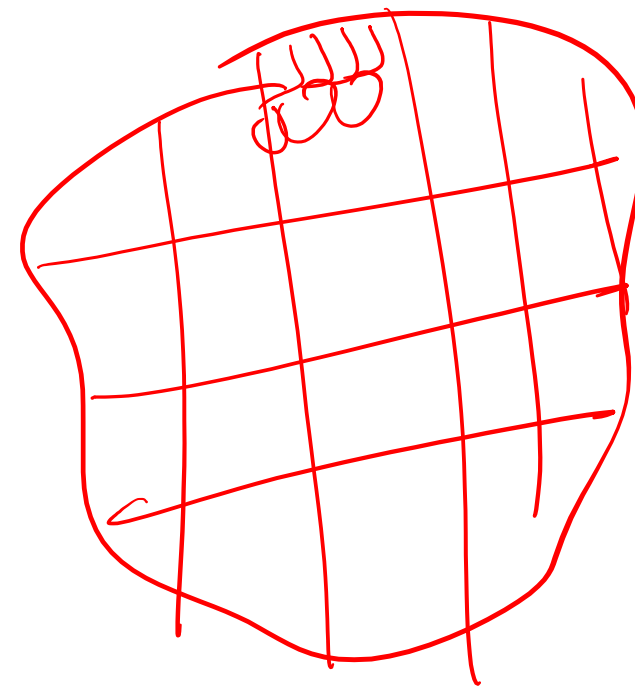
Sample frame error occurs when a sampling frame does not sufficiently cover the population required for a study.

Reducing errors



Sampling errors are easy to identify. Here are a few simple steps to reduce sampling error:

1. Increase sample size
2. Divide the population into groups
3. Know your population



Thank you

