CAUSAL RESEARCH DESIGNS

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Meaning of Causal Designs

These are the designs which are used to determine the degree to which one variable is causally related to another.

Pre- Experimental Designs

- ***One shot case study*** *:- It involves exposing the test units to treatment for some period of time and taking a measurement of dependent variable.*

  X O1

- ***one group pretest post test design*** *:- It is design where group of test units are measured twice.*

  O1 X O2

Pre- Experimental Designs Contd…

- ***STATIC GROUP DESIGN***:- *In this design we use two groups of subjects. Group 1 is exposed to the treatment whereas Group 2 has not been exposed to it. Group 2 is called a control group and is used as the baseline for comparison since it has not been exposed to the treatment.*

Group 1 (Experimental Group): X1 O1
Group 2 (Control Group): X2 O2

True experimental designs

After only control group design

In this design, two groups are taken – one experimental and one control group are set up by randomization procedure. The design requires only one treatment and post test measurement of both of experimental and the control group. The design may be written symbolically as follows:

Experimental Group	*R*	*X*	*O1*
Control Group	*R*		*O2*

True experimental designs contd…

Before-After with One Control Group : ***This design may be presented symbolically as:***

Experimental Groups	***R***	***O1***	***X1***	***O2***
Control Groups	***R***	***O3***		***O4***

This design is also called Pretest - Post test Design.

True experimental designs contd…

Four Group Design: This design is a combination of Before After with one control group' and `After only with one control Group' designs. The design is symbolically presented as:

Experimental Groups :	*R O1*	*X*	*O2*
Control Groups :	*R O3*		*O4*
Experimental Groups :	*R*	*X*	*O5*
Control Groups	*R*		*O6*

Thank you