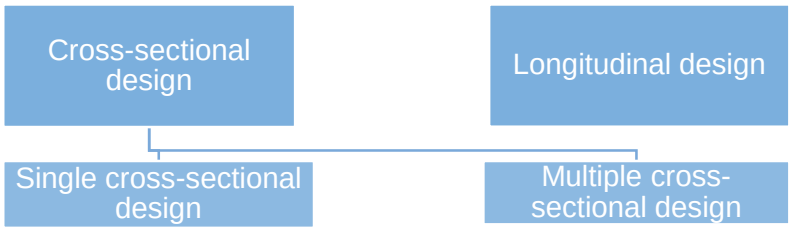
CERTIFIED BENCHMARKING PROFESSIONAL

Fact sheet: Advanced data collection

1. Descriptive Research: Design



2. Experimental Research: Design

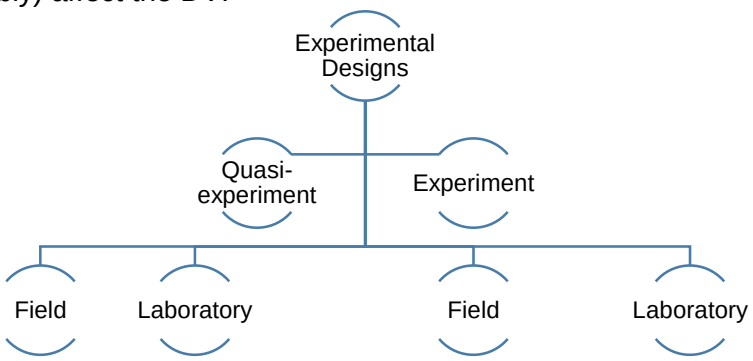
An experiment is formed when the researcher manipulates one or more independent variables and measures their effect on one or more dependent variables, while controlling for the effect of extraneous variables.

Experiments are used to infer causal relationships ("X causes Y"). Causality implies 3 conditions:

1. X and Y must occur/vary together time order;
2. The causing event cannot occur after the effect;
3. Absence of other possible causing factors.

Important terms:

- Independent variable(s) (IV) – this variable is manipulated in an experiment;
- Dependent variable(s) (DV) – this variable is (presumably) affected by the variation of the IV;
- Extraneous variables - these variables are all variables other than the IV that (possibly) affect the DV.



- Laboratory: high internal validity (i.e. results are not confounded by other variables);
- Field: high external validity (generalizability);
- Video suggestion for understanding the concept: http://www.youtube.com/watch?v=eiO_JES4yBY&feature=related

Source: Technische Universitatet Muenchen, 2012