

## SUMMARY

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1. There are three categories of quantitative research design: experimental forms, quasi-experimental forms, and descriptive forms.
2. Experimental research is used to establish cause–effect relationships between or among variables, and is most often conducted in a laboratory.
3. In an experiment, the researcher controls the manipulation of the independent variable by randomly assigning participants to treatment or control groups; this ensures that the treatment and control groups are equivalent before any treatment is applied or withheld.
4. Manipulation checks should be conducted to ensure that participants perceived variation in the independent variable as the researcher intended.
5. In the posttest only design, the dependent variable is measured only once—after participants are exposed to the stimulus.

6. In the pretest–posttest design, only individuals in the treatment group are exposed to the stimulus; the dependent variable is measured for all participants prior to and after the treatment group receives the stimulus.
7. In the factorial design, treatment groups are based on two or more independent variables, with random assignment occurring on one of the variables.
8. The time between the multiple measurements of the dependent variable in a longitudinal design is based on the communication phenomena under study and the theoretical foundation of the study.
9. In quasi-experiments, the researcher uses the natural variation that exists on the independent variable to assign participants to treatment and control conditions.
10. Field experiments are a form of quasi-experimental research design conducted in a naturalistic setting.
11. Descriptive designs are those studies that do not use random assignment of participants or researcher manipulation of the independent variable; as a result of lacking these controls, these research designs cannot demonstrate causation.
12. Communication researchers often use descriptive designs when communication phenomena do not lend themselves to experimental or quasi-experimental designs.
13. Online survey software can be used effectively, especially when a condition or manipulation is dependent on a participant viewing a particular text, audio, or video stimuli.
14. All research designs can suffer from bias from researcher effects or procedural inconsistencies.

## KEY TERMS

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classical experiment

control group

cross-sectional design

descriptive design

experiment

experimental research

factorial design

field experiment

interaction effect  
longitudinal design  
main effect  
manipulation  
manipulation check  
non-experimental  
design

posttest only  
pretest–posttest  
quasi-experiment  
random assignment  
research protocols  
treatment  
treatment group

See the website [www.mhhe.com/keyton4](http://www.mhhe.com/keyton4) that accompanies this text. For each chapter, the site contains a:

- chapter outline
- chapter checklist
- chapter summary
- short multiple-choice quiz
- PowerPoint presentation created by Dr. Keyton

For a list of internet resources, visit <http://www.joannkeyton.com/CommunicationResearch-Methods.htm>.