

## SUMMARY

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1. Quantitative research relies on the use of numbers as a way of observing and measuring communication phenomena.
2. Researchers bring objectivity to the study of communication through the use of traditional quantitative approaches and statistical techniques.
3. Quantitative research relies on deductive reasoning.
4. The primary objective of quantitative research is to test propositions developed from theory.
5. The quantitative research model includes five components: research purpose, literature foundation, research questions and research hypotheses, research methods, and validity and reliability.
6. Quantitative research requires that every phenomenon studied be conceptualized and then explicitly defined. Researchers work from concepts to constructs to variables to operationalizations in providing the degree of objective specificity needed to examine communication phenomena.
7. Operationalizations are the specific way in which researchers observe and measure variables in quantitative research.
8. Quantitative research typically relies on the use of hypotheses to drive the research process.
9. Hypotheses should be simply stated, have variables and their relationships clearly specified, and be testable.
10. Although researchers develop research hypotheses, the null hypothesis is actually the focus of the statistical test.
11. A hypothesis includes both independent and dependent variables.
12. Researchers can also use research questions as a foundation for their quantitative research. Research questions are appropriate to use when there is little known about a communication phenomenon or when previous results are inconclusive.

13. Advantages of quantitative research include a certain degree of rigor, objectivity achieved through the use of numbers and statistics, and ability to make comparisons among a large group of participants.
14. Limitations of quantitative research include difficulty in capturing the complexity or depth of communication over time, and the inability to capture communication phenomenon that cannot be replicated or simulated in a controlled environment.
15. Quantitative research must address threats to reliability and validity, including using imprecise measures of variables, attempting to measure something that is unknown or irrelevant to participants, and difficulty in capturing the complexity of human interaction.

## KEY TERMS

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antecedent variable	nondirectional hypothesis
causal variable	null hypothesis
concept	operationalization
conceptual scheme	outcome variable
construct	predictor variable
criterion variable	reliability
dependent variable	treatment variable
directional hypothesis	validity
experimental variable	variable
independent variable	

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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>.