SUMMARY

1. Research relies on measurement.
2. Measurement allows researchers to make comparisons.
3. Discrete data are known as categorical or nominal data and describe the presence or absence of some characteristic or attribute.

4. For categorical data, each variable is comprised of two or more classes or categories that should be mutually exclusive, exhaustive, and equivalent.
5. Continuous level data can be one of three types: ordinal, interval, or ratio.
6. Ordinal data rank the elements in some logical order, but without knowing the relative difference between ranks.
7. Interval data are more sophisticated in that they represent a specific numerical score, and the distance between points is assumed to be equal.
8. Ratio data are the most sophisticated data type; they have the characteristics of interval data and a true zero.
9. Issues of validity and reliability are associated with all types of measurement.
10. Data are valid to the extent that they measure what you want them to measure.
11. Face validity exists when the measurement reflects what we want it to.
12. Content validity exists when the measurement reflects all possible aspects of the construct of interest.
13. Criterion-related validity exists when one measurement can be linked to some other external measurement.
14. Construct validity exists when measurement reflects its theoretical foundations.
15. Reliability is the degree to which measurement is dependable or consistent; it is expressed as a matter of degree.
16. Internal reliability is achieved when multiple items purportedly measuring the same variable are highly related.
17. Test–retest reliability is achieved when measurements at two different times remain stable.
18. Measurement of data must be both valid and reliable.
19. Validity and reliability are threatened by the choices researchers make about how they collect data, and whom or what they choose as their sample, as well as alternative explanations that are plausible.
20. Regardless of how data are collected, they must be collected and reported accurately, ethically, and responsibly.

KEY TERMS

attrition
categorical data
concurrent validity
construct validity
content validity
continuous level data
criterion-related validity
Cronbach's alpha
ecological validity
equivalent
exhaustive
external validity
face validity
internal reliability
internal validity
interval
interval data
Likert-type scale
maturation
measurement
mortality
mutually exclusive
nominal data
ordinal data
predictive validity
quantitative data
ratio data
reliability
reliability coefficient
semantic differential scale
test–retest reliability
unitizing reliability
validity

See the website 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/CommunicationResearchMethods.htm.