

# Burns: Understanding Nursing Research, 5<sup>th</sup> Edition

### **Chapter 02: Introduction to the Quantitative Research Process**

#### **Test Bank**

#### MULTIPLE CHOICE

- 1. A researcher is studying the relationship between age and involvement in social activities. This is what type of research?
  - a. Correlational
  - b. Descriptive
  - c. Quasi-experimental
  - d. Experimental

ANS: A

Correlational research investigates the relationship between or among variables. Descriptive research is the exploration of phenomena in real-life situations. Correlational research investigates the relationship between or among variables.

Quasi-experimental research studies involve implementing a treatment. Correlational research investigates the relationship between or among variables.

Experimental research is an objective, systematic, highly controlled investigation for the purpose of predicting and controlling phenomena. Correlational research investigates the relationship between or among variables.

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- 2. The question "Is there a relationship between caffeine intake and intraocular pressure in patients with glaucoma?" is an example of which type of research?
  - a. Basic
  - b. Correlational
  - c. Historical
  - d. Phenomenological

#### ANS: B

Correlational research investigates the relationship between or among variables. Basic research is scientific investigation that involves the pursuit of "knowledge for knowledge's sake."

Historical research is a type of qualitative research.

Phenomenological research is a type of qualitative research.

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- 3. Which of the following types of research involve at least a minor degree of control by the researcher to implement the study treatment?
  - a. Correlational
  - b. Descriptive
  - c. Experimental

d. Quasi-experimental

ANS: D

Quasi-experimental studies have less control than experimental studies, but they do exhibit some degree of control.

Correlational research investigates the relationship between or among variables.

Descriptive research is the exploration of phenomena in real-life situations.

Experimental research is an objective, systematic, highly controlled investigation for the purpose of predicting and controlling phenomena.

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- 4. In which type of research is there high researcher control, random sampling, and controlled setting?
  - a. Descriptive
  - b. Correlational
  - c. Experimental
  - d. Quasi-experimental

ANS: C

Experimental design is considered the most powerful quantitative design because of the rigorous control of variables.

Descriptive research is the exploration of phenomena in real-life situations. Experimental design is considered the most powerful quantitative design because of the rigorous control of variables.

Correlational research investigates the relationship between or among variables. Experimental design is considered the most powerful quantitative design because of the rigorous control of variables.

Quasi-experimental studies have less control than experimental studies, but they do exhibit some degree of control. Experimental design is considered the most powerful quantitative design because of the rigorous control of variables.

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- 5. What category or type of research is suggested by the following research question? "Does telephone follow-up by nurses improve patients' compliance with their medication regimens?"
  - a. Applied
  - b. Basic
  - c. Phenomenological
  - d. Quality assurance

ANS: A

Applied research involves research that is directly applicable to clinical practice. Basic research is scientific investigation that involves the pursuit of "knowledge for knowledge's sake."

Phenomenological research studies the lived experience of individuals' specific response to a given situation.

Quality assurance does not involve an effort to make results useful to other locations and/or situations.

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- 6. A researcher investigates the effect of frequency of position change on the healing of decubitus ulcers. The study would be described as:
  - a. applied research.
  - b. basic research.
  - c. descriptive research.
  - d. phenomenological research.

ANS: A

Applied research involves research that is directly applicable to clinical practice. Basic research is scientific investigation that involves the pursuit of "knowledge for knowledge's sake."

Descriptive research is the exploration of phenomena in real-life situations. Phenomenological research would not investigate this type of research question.

DIF: Cognitive level: Application REF: p. 37

- 7. Applied research seeks to solve a clinical problem in which setting?
  - a. Controlled
  - b. Laboratory
  - c. Natural
  - d. Simulated

ANS: C

Applied research is used to solve problems, make decisions, or predict or control outcomes in real-life practice situations.

Clinical problems are seldom in controlled settings. Applied research is used to solve problems, make decisions, or predict or control outcomes in real-life practice situations. Basic research is more likely to be found in a laboratory setting. Applied research is used to solve problems, make decisions, or predict or control outcomes in real-life practice situations.

Clinical problems occur in real-life settings. Applied research is used to solve problems, make decisions, or predict or control outcomes in real-life practice situations.

DIF: Cognitive level: Analysis REF: p. 37

- 8. A researcher designs a study that uses a random sampling method to decrease the likelihood of bias in the study sample. This strategy was used to implement:
  - a. control.
  - b. data collection.
  - c. experimental research.
  - d. manipulation.

ANS: A

Control involves the imposing of rules by the researcher to decrease the possibility of error and thus increase the probability that the study's findings are an accurate reflection of reality.

Data are collected from the sample, however, the sample is created.

Random sampling does not alone establish an experimental study.

Manipulation is when the researcher makes changes in the treatment received by the subjects.

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- 9. Which of the following definitions best describes rigor in quantitative research?
  - a. Amount of control and precision exerted by the methodology
  - b. Degree of aggressiveness used in acquiring the data
  - c. Process used to synthesize findings to form conclusions from a study
  - d. Time frame in which the research takes place

ANS: A

Rigor involves discipline, adherence to detail, and strict accuracy to promote excellence in research. Precise measurement tools, a representative sample, and a tightly controlled study design contribute to the rigor of a study.

Aggressiveness, as long as it is consistent, would not relate to rigor of the study. The process itself would not affect the rigor of a study.

The time frame would be unrelated to the rigor of the study.

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- 10. A researcher is interested in studying stress and coping in caregivers of elderly stroke victims. The researcher designs a study in which data collection takes place in the caregiver's home. This would be an example of which type of research setting?
  - a. Highly controlled, field
  - b. Highly controlled, laboratory
  - c. Natural, field
  - d. Partially controlled, laboratory

## ANS: C

The setting is the location where a study is located. There are three common settings for conducting research: natural, partially controlled, and highly controlled. A natural setting, or field setting, is an uncontrolled, real-life situation or environment.

By collecting the data in the subject's own home, the researcher has little control over the setting. The setting is the location where a study is located. There are three common settings for conducting research: natural, partially controlled, and highly controlled. A natural setting, or field setting, is an uncontrolled, real-life situation or environment. The subject's own home is not a laboratory setting. The setting is the location where a study is located. There are three common settings for conducting research: natural, partially controlled, real-life situation or environment. The subject's own home is not a laboratory setting. The setting is the location where a study is located. There are three common settings for conducting research: natural, partially controlled, and highly controlled. A natural setting, or field setting, is an uncontrolled, real-life situation or environment.

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- 11. Problem identification in the research process would be equivalent to which step in the nursing process?
  - a. Assessment
  - b. Goal identification
  - c. Nursing diagnosis
  - d. Planned interventions

ANS: C

Nursing diagnosis, the second step of the nursing process, involves identifying a nursing problem based on findings from the nursing assessment.

Assessments are equivalent to the literature review. Nursing diagnosis, the second step of the nursing process, involves identifying a nursing problem based on findings from the nursing assessment.

Setting goals is equivalent to the methodology. Nursing diagnosis, the second step of the nursing process, involves identifying a nursing problem based on findings from the nursing assessment.

Planned interventions is equivalent to methodology. Nursing diagnosis, the second step of the nursing process, involves identifying a nursing problem based on findings from the nursing assessment.

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- 12. The plan in the problem-solving process is equivalent to which step in the research process?
  - a. Design
  - b. Implementation
  - c. Outcomes
  - d. Problem identification

ANS: A

Design in the research process involves developing the plan or approach (methodology) for the research study.

Implementation is the same in all three processes.

Outcomes are equivalent to the evaluation step.

Problem identification is equivalent to problem and purpose identification.

DIF: Cognitive level: Application REF: p. 41

- 13. The research process differs from the nursing process on which of the following?
  - a. Has a broader focus
  - b. Identifies new information

- c. Involves abstract, critical thinking
- d. Uses complex thinking

### ANS: A

The research process has a broader focus than the nursing process. In the research process, the researcher usually focuses on groups of patients and their families. In the nursing process, a nurse generally focuses on a specific patient and family.

Both processes may involve the creation of new knowledge. The research process has a broader focus than the nursing process. In the research process, the researcher usually focuses on groups of patients and their families. In the nursing process, a nurse generally focuses on a specific patient and family.

Both processes may involve abstract and critical thinking. The research process has a broader focus than the nursing process. In the research process, the researcher usually focuses on groups of patients and their families. In the nursing process, a nurse generally focuses on a specific patient and family.

Both processes may involve complex thinking. The research process has a broader focus than the nursing process. In the research process, the researcher usually focuses on groups of patients and their families. In the nursing process, a nurse generally focuses on a specific patient and family.

DIF: Cognitive level: Analysis REF: p. 42

- 14. Which of the following would identify the specific aim or goal of the study based on the identified problem?
  - a. Assumptions
  - b. Literature review
  - c. Methodology
  - d. Purpose

ANS: D

The research purpose is generated from the problem and identifies the specific goal or aim of the study.

Assumptions are ideas that the researcher has going into the study and influence certain aspects of the study. The research purpose is generated from the problem and identifies the specific goal or aim of the study.

The literature review determines the current status of knowledge on the subject. The research purpose is generated from the problem and identifies the specific goal or aim of the study.

The methodology is the plan for the way in which the study will be conducted. The research purpose is generated from the problem and identifies the specific goal or aim of the study.

DIF: Cognitive level: Knowledge REF: p. 44

- 15. A research problem is defined as a/an:
  - a. general area of concern requiring study.
  - b. intended or desired result of a specific action.
  - c. statement that specifically indicates the study focus.

d. topic of personal interest.

ANS: A

A research problem is an area of concern in which there is a gap in the knowledge base needed for nursing practice.

The research goal is the specific aim of the study. A research problem is an area of concern in which there is a gap in the knowledge base needed for nursing practice. The research purpose specifically states the aim of the study. A research problem is an area of concern in which there is a gap in the knowledge base needed for nursing practice.

Although the researcher may have a personal interest in the topic, need for research is related to an area of concern for a particular population that requires investigation. A research problem is an area of concern in which there is a gap in the knowledge base needed for nursing practice.

DIF: Cognitive level: Knowledge REF: p. 44

- 16. Research subjects in a study of quality of life (QOL) in liver transplant recipients were asked to complete a questionnaire about their experiences after transplantation. Which of the following would be a likely assumption that the researcher made in relation to this study?
  - a. All liver transplant recipients invited to participate in the study will complete a questionnaire.
  - b. QOL is an important issue to liver transplant recipients.
  - c. Subjects are able to identify a personal awareness of QOL.
  - d. Subjects will complete every item on the questionnaire.

ANS: C

Assumptions are statements taken for granted or are considered true, even though they have not been scientifically tested.

The researcher does not indicate that this is an assumption of the study. It is undoubtedly hoped for to get a large sample size.

The researcher does not indicate that this is an assumption of the study. It is undoubtedly hoped for; otherwise, subjects will not complete their questionnaires.

The researcher does not indicate that this is an assumption of the study. It is undoubtedly hoped for to get complete data.

DIF: Cognitive level: Comprehension REF: p. 48

- 17. Statements that are taken for granted or are considered true, even though they have not been scientifically tested, are called:
  - a. assumptions.
  - b. hypotheses.
  - c. limitations.
  - d. variables.

ANS: A

Assumptions are statements that are taken for granted or are considered true, even though they have not been scientifically tested.

Hypotheses are the researcher's best guess as to the outcome of the study.

Limitations are factors in the study that cannot be controlled or manipulated, but might have an influence on the outcome.

Variables are the factors that the researcher wants to investigate.

DIF: Cognitive level: Knowledge REF: p. 48

- 18. A study analyzing the effect of exercise on diet control in Hispanic women with type II diabetes would most credibly be generalizable to which population?
  - a. All patients with type II diabetes
  - b. Hispanic patients with type II diabetes
  - c. Hispanic women with type II diabetes
  - d. Women with type II diabetes

ANS: C

Generalization is the extension of the implications of the research findings from the sample to a larger population.

The population that the sample represents does not include all patients with type II diabetes.

The population that the sample represents does not include all Hispanic patients with type II diabetes.

The population that the sample represents does not include all women patients with type II diabetes.

DIF: Cognitive level: Comprehension REF: p. 48

- 19. Before implementing a large, multisite research investigation, a researcher conducts a smaller study to identify any problematic areas in the planned study. This smaller study is known as a/an:
  - a. abstract.
  - b. exploratory design.
  - c. pilot study.
  - d. proposal.

ANS: C

A pilot study is frequently defined as a smaller version of a proposed study conducted to refine the methodology.

The abstract is a synopsis of the study found at the beginning of a research report.

Exploratory design is used when the total situation is unclear.

A proposal is a formal request to conduct a study; it can be submitted to obtain funds or get feedback on the study's methodology.

DIF: Cognitive level: Comprehension REF: p. 49

- 20. Pilot studies are done for which reason?
  - a. Conceptualize the project

- b. Develop and refining a planned study
- c. Generalize findings to a population
- d. Identify gaps in knowledge

### ANS: B

A pilot study is developed similarly to a proposed study to test the research process before implementation of the full study. This allows for development and refinement of the research plan.

The pilot study is based on the same methodology as the bigger project; it would already have been developed conceptually.

Usually pilot studies are conducted with small sample sizes, making them difficult to generalize.

Gaps in knowledge are not identified through pilot studies.

DIF: Cognitive level: Knowledge REF: p. 49

- 21. The researcher uses which portion of the research report to capture the reader's attention?
  - a. Abstract
  - b. Conclusion
  - c. Framework
  - d. Methodology

ANS: A

The research report usually begins with an abstract: a clear, concise summary of a study. Researchers hope their abstracts will concisely convey the findings from their study and capture the reader's attention so he or she will read the entire report.

Conclusions are presented at the end of the report. The research report usually begins with an abstract: a clear, concise summary of a study. Researchers hope that their abstracts will concisely convey the findings from their study and capture the reader's attention so he or she will read the entire report.

The framework is present later in the study report and tells about the foundation of the study. The research report usually begins with an abstract: a clear, concise summary of a study. Researchers hope their abstracts will concisely convey the findings from their study and capture the reader's attention so he or she will read the entire report. The methodology is in the middle part of the report. The research report usually begins with an abstract: a clear, concise summary of a study. Researchers hope their abstracts will concisely convey the findings from their study and capture the reader's attention so he or she will read the entire report. The methodology is in the middle part of the report. The research report usually begins with an abstract: a clear, concise summary of a study. Researchers hope their abstracts will concisely convey the findings from their study and capture the reader's attention so he or she will read the entire report.

DIF: Cognitive level: Knowledge REF: p. 55

- 22. The sentence, "The purpose of this study was to examine the relationship between health beliefs and breast self-examination," would most likely be found in which section of a research report?
  - a. Discussion
  - b. Introduction
  - c. Methods
  - d. Results

ANS: B

The introduction section of a research report identifies the nature and scope of the problem being investigated and justifies the conduct of the study.

The discussion section tells the reader what the researcher thinks about the results of the analysis. The introduction section of a research report identifies the nature and scope of the problem being investigated and justifies the conduct of the study.

The methods section informs the reader of how the study was carried out. The introduction section of a research report identifies the nature and scope of the problem being investigated and justifies the conduct of the study.

The results section gives the outcome of the statistical analysis. The introduction section of a research report identifies the nature and scope of the problem being investigated and justifies the conduct of the study.

DIF: Cognitive level: Analysis REF: p. 57

- 23. A nurse reads a research report published in a professional journal. The nurse notes that a convenience sample was used, and data were gathered from several clinical sites. Overall the nurse was impressed with the quality and credibility of the study. The nurse demonstrated which critical thinking skill related to reading research reports?
  - a. Analyzing a research report
  - b. Highlighting key components of the research report
  - c. Quickly reading through the report for a broad overview
  - d. Reading the entire study through carefully to focus on major concepts

## ANS: A

Analyzing a research report involves examining the report for characteristics, such as accuracy, completeness, and logical links, to determine if the findings should be incorporated in practice.

Highlighting key components of the research report is part of comprehending the report. Quickly reading the report is "skimming" the report.

Reading the entire study through carefully to focus on major concepts describes comprehending a report.

DIF: Cognitive level: Application REF: p. 60

- 24. Which of the following best describe a researcher striving for rigor in a study? The researcher has:
  - a. created a minimally controlled study design, to depict a more natural setting.
  - b. developed an instrument especially for this study to precisely measure anxiety.
  - c. found a highly reliable and valid instrument used in several previous studies with good results.
  - d. recruited 1000 qualified nursing students to participate in the study.

## ANS: C

A rigorously conducted quantitative study has precise measuring tools, a representative sample, and a tightly controlled study design.

Creating a tightly controlled design will help show causality between dependent and independent variables.

If it is a researcher-developed instrument, the validity and reliability are in question. It does not say how the sample was selected, so it is not known if it is representative.

DIF: Cognitive level: Comprehension REF: p. 39

- 25. What is the correct order of the steps of the research process?
  - 1. Establishing the methodology
  - 2. Implementation
  - 3. Problem and purpose identification
  - 4. Search for knowledge
  - 5. Synthesis of findings
  - a. 1, 2, 3, 4, 5
  - b. 2, 4, 5, 1, 3
  - c. 3, 1, 2, 5, 4
  - d. 4, 3, 1, 2, 5

#### ANS: D

The correct order is search for knowledge, problem and purpose identification, establishing the methodology, implementation, and synthesis of findings.

DIF: Cognitive level: Analysis REF: p. 43

- 26. Which answer has terms that come from all three of the following: the problem-solving process, nursing process, and the research process, rather than just one?
  - a. Assessment, nursing diagnosis, evaluation
  - b. Data collection, methodology, evaluation
  - c. Data collection, problem identification, implementation
  - d. Literature review, design, outcomes

ANS: B

Data collection, methodology, and evaluation are terms come from all three processes: data collection from the problem-solving process, methodology from the research process, and evaluation from both problem-solving and nursing processes.

Assessment, nursing diagnosis, and evaluation are terms from the nursing process.

Data collection, problem identification and implementation are from the problem-solving process.

Literature review, design, and outcomes are terms from the research process.

DIF: Cognitive level: Analysis REF: p. 41

- 27. Which of the following items is not typically included in the purpose statement of a research study?
  - a. Variables
  - b. Methodology
  - c. Population of interest
  - d. Setting of the study

ANS: B

The methodology describes how the study will be conducted, and is not considered a component of the purpose statement.

The purpose includes the variables, population, and often the setting for the study. The purpose includes the variables, population, and often the setting for the study. The purpose includes the variables, population, and often the setting for the study.

DIF: Cognitive level: Comprehension REF: p. 44

28. Which statements are true about a literature review? The literature review:

- a. cannot include any articles written more than 5 years ago.
- b. generates a picture of what is known and not known about a particular problem.
- c. includes an exhaustive review of all information on the subject.
- d. indicates whether adequate knowledge exists to make changes in practice; provides guidelines for analysis of the data for the developing study.

ANS: B

Literature reviews provide a picture or describe what is known and not known, or also stated as gaps in the knowledge of the subject or phenomenon under study.

Studies considered classic in a field are often included, even if they are more than 5 years old.

Literature reviews present only relevant studies from credible sources. The research question drives the researcher in developing the study, including determining the type of analysis that will be used.

DIF: Cognitive level: Analysis REF: p. 44

- 29. How does a study framework differ from a theory? A framework:
  - a. can be conveyed through a diagram or map, whereas a theory can not.
  - b. is a testable theory used by the researcher.
  - c. is used in applied research, and a theory is used in basic research.
  - d. needs more explanation than a theory.

ANS: B

A framework is defined as a testable theory used by the researcher. Both theories and frameworks can be conveyed through diagrams or maps. Both applied and basic research types can contain frameworks in their designs. A framework may or may not need more explanation than a theory.

DIF: Cognitive level: Knowledge REF: p. 45

- 30. Which journal is most likely to publish a report on the findings of a recent study on patient compliance with low-sodium diets?
  - a. (The) American Journal of Nursing
  - b. Applied Nursing Research
  - c. Diabetic Educator
  - d. Nursing 2010

ANS: B

Applied Nursing Research is the most likely source of a report on the findings of a study on patient compliance.

American Journal of Nursing's focus is not publishing of nursing studies.

Research directly connected to the diabetic patient might be found in *Diabetic Educator*, but it is more likely that a study on compliance with a low-sodium diet would be in *Applied Nursing Research*.

Nursing 2010's focus is not on publishing nursing studies.

DIF: Cognitive level: Comprehension REF: p. 54

- 31. A researcher describes a study as a descriptive study. Which of the following would typically be part of the research methodology for the study?
  - a. Finding a representative sample
  - b. Describing a causal effect between the variables
  - c. Identifying the control group
  - d. Planning the intervention

ANS: A

A representative sample is part of a descriptive design.

The primary intent of a descriptive study is to describe or explain phenomena of interest.

A descriptive study has no control group or intervention. A descriptive study has no control group or intervention.

DIF: Cognitive level: Analysis REF: p. 35

- 32. A researcher describes a study as correlational. Which of the following would not be typically found in a research report of the study?
  - a. A description of the variables
  - b. A correctly stated purpose of the study
  - c. A hypothesis indicating a causal relationship between the variables
  - d. A report of strength of association

ANS: D

The primary intent of correlational studies is to explain the nature of relationships in the real world, not to determine cause and effect.

As correlational studies explain the nature of relationships, a description of the variables would be included.

A correlational study would include a stated purpose of the study.

Correlational studies describe the nature of relationships in the real world, and so would work from a predicted hypothesis.

DIF: Cognitive level: Analysis REF: p. 35

- 33. In critiquing a research study, what would indicate that the researcher minimized the limitations of the study? The
  - a. connection among the concepts was made clear in the report.
  - b. findings were generalized beyond the scope of the study.
  - c. sample for the study was drawn from a convenient group of patients from nearby

facilities.

d. variables were described using vague and conflicting terms.

ANS: A

Typical methods of minimizing limitations of a study include developing clear relationships among the concepts used in the study, appropriate generalization of the study findings, using a representative sample of the population under study, and developing logical operational definitions of the variables under study.

Generalizing findings beyond the scope of the study broadens the limitations of a study instead of minimizing them.

In minimizing study limitations, the sample should be more controlled than drawing from a convenient group of patients from nearby facilities.

Variables in a well-limited study should be clearly defined and described, not using vague and conflicting terms.

DIF: Cognitive level: Application REF: p. 48

- 34. In selecting a research design, what would indicate that the researcher's choice was not the correct one? The
  - a. methods of measurement do not match the research purpose.
  - b. plans for data analysis are reasonable and match the study questions.
  - c. researcher is capable of conducting the study.
  - d. research question can be addressed with the design chosen.

## ANS: A

In a correctly designed research study, the methods of measurement match or are appropriate to the research purpose.

In a correctly designed research study, the research question can be addressed with the design chosen.

In a correctly designed research study, the researcher is capable of conducting the study. In a correctly designed research study, the plans for data analysis are reasonable and match the study questions.

DIF: Cognitive level: Analysis REF: p. 49

- 35. When critiquing a research report, what would not be needed in the description of the sample to determine the validity of the sample? The
  - a. population it was representing
  - b. number of subjects
  - c. way the sample was chosen
  - d. mean age of the sample

## ANS: D

The mean age might be of interest, but may or may not relate to the study's purpose and, therefore is not a necessary component of the report.

A good research report would include the population represented, the number of subjects, and the method used to obtain the subjects.

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A good research report would include the population represented, the number of subjects, and the method used to obtain the subjects.

DIF: Cognitive level: Analysis REF: p. 56, Table 2-4

- 36. If a researcher used an instrument to measure happiness and reports that in the past it has been used to determine degree of hardiness, what would a critique of the study focus on regarding this choice?
  - a. The validity of the research tool is in question.
  - b. The population is not adequately represented by the study.
  - c. There would be a need to find out what were the scores on the questionnaire.
  - d. All of the above

### ANS: A

A good researcher needs to select an instrument with high validity and reliability. Although a study might determine that the one indicated here works well to measure happiness, that would need to be determined. In critiquing the study, this would be a major flaw unless the researcher reports on the validity of the instrument for this purpose. Questionnaires cannot be applied to different variables without testing.

The representativeness of the population is not of concern in regard to the instrument selected.

Scores on the instrument are not of concern if the instrument is not valid. Items B and C are not correct, making this choice incorrect also.

DIF: Cognitive level: Application REF: p. 58

### MULTIPLE RESPONSE

- 1. Which of the following are true statements about quantitative research? (Choose all that apply.)
  - a. Correlational research is not true research because there is no control group.
  - b. Experimental research is what quantitative research is all about.
  - c. Quasi-experimental research is a useful option when controlled conditions are not possible.
  - d. Statistical tests are employed with quantitative research studies.

#### ANS: C, D

Quasi-experimental research is a useful option when controlled conditions are not possible.

Statistical tests are employed with quantitative research studies.

Correlational research is "true" research, just a different kind.

Experiments are only one form of quantitative research.

DIF: Cognitive level: Comprehension REF: p. 34

- 2. Which of the following are true statements about basic research? (Choose all that apply.) Basic research:
  - a. cannot be generalized.
  - b. has no implications for practice.
  - c. is often conducted with animals.
  - d. is the pursuit of "knowledge for knowledge's sake."

ANS: C, D

Animals are often used in basic research.

Basic research pursues knowledge for its own sake.

Basic research can be generalized to appropriate populations if it has been conducted correctly.

There are implications for practice coming out of basic research; they are just not directly applied.

DIF: Cognitive level: Comprehension REF: p. 36

- 3. Which of the following best describes how to handle extraneous variables? (Choose all that apply.) The researcher:
  - a. can control all extraneous variables as long as they are identified.
  - b. can control for extraneous variables through study design.
  - c. must identify the main extraneous variables and control for them.
  - d. should include all extraneous variables in the data analysis to eliminate their influence.

ANS: B, C

When contemplating the study design, it is helpful for the researcher to think of things that might influence the study, but are not part of the study. Sometimes there is not much the researcher can do about them. Other times the researcher can set up the study to eliminate them, making the sample as homogeneous as possible with the exception of what the researcher wants to explore.

The researcher needs to identify as many extraneous variables and control for them to reduce their effects on the results of the study.

There is no way to control for all extraneous variables.

Including extraneous variables in data analysis may actually increase their influence in the study.

DIF: Cognitive level: Analysis REF: p. 39

- 4. Which of the following are true statements about what research means? (Choose all that apply.) Research:
  - a. and experiment are synonymous terms.
  - b. has specific protocols and steps to follow.
  - c. helps us know about new situations and concepts.
  - d. proves the "true reality" of a situation.

ANS: B, C

Research has specific protocols and steps to follow.

Research helps us know about new situations and concepts. Experiments are only one form of one kind of research (quantitative). Although people tend to think research can "prove" something, it really only supports an idea or hypothesis.

DIF: Cognitive level: Analysis REF: p. 39