Capitalization – The first word of a sentence is capitalized & punctuated as usual. Each bullet point answer begins with capitalization and ends with a period. Bullet point answers that complete a sentence with the question above are not capitalized, but end with a period (…).

**LMS Questions for Applied Research Course (DLMAF01)**

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| **Unit/**  **Question Number** | **Section** | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **1/1** | **1.1** | Which is the ultimate goal of science? | To find true and substantial assertions, laws and theories that relate to a specific subject area. | To find assertions, laws, and theories that are not comprehensible under any circumstances. | To find true and meaningful assertions, laws, and theories that can be equally applied to all subject areas. | To find assertions, laws, and theories that are only understood by experts in specific circles. |
| **1/2** | **1.1** | Which refers to fallibilism? | Results have a certain fallibility, even if they have been empirically proven. | Results are arranged in the evaluation in descending order. | Results in evaluations were displayed incorrectly. | Empirically proven results cannot be wrong under any circumstances. |
| **1/3** | **1.1** | Which is the procedure when scientists first search for a theory, derive hypotheses from it, and only then test them empirically? | Deductive procedure. | Abductive procedure. | Descriptive procedure. | Inductive procedure |
| **1/4** | **1.2** | Which is the central quality criterion in quantitative research when a measurement is repeated and reveals the same result? | Reliability. | Validity. | Objectivity. | Intersubjectivity. |
| **1/5** | **1.3** | Whether a display in a supermarket leads to increased purchases of the product featured on the display is to be measured. Which is the dependent variable and which is the independent variable in this case? | Dependent variable: purchases, independent variable: display. | Dependent variable: display, independent variable: purchases. | Dependent variable: all products in a supermarket, independent variable: purchases. | Dependent variable: purchases, independent variable: all products in a supermarket. |
| **Unit/**  **Question Number** |  | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **2/1** |  | Which refers to hypotheses? | Conjectures as to how results might turn out. | Theories already validated. | Conjectures that can be confirmed with certainty. | Groundbreaking initial findings of a study. |
| **2/2** |  | Which refers to the term “complete survey”? | Survey of all individuals in a population. | Use of quantitative and qualitative methods. | Survey of all persons interested in participating in a study. | Survey of persons who are paid in full for participation. |
| **2/3** |  | Which refers to interviews being conducted until no more new insights arise? | Theoretical saturation. | Practical saturation. | Hermeneutic saturation. | Qualitative saturation. |
| **2/4** |  | Which method is most useful to survey how often the term “Covid denier” occurred in daily newspapers from March 2020 to March 2021? | Content analysis. | Survey. | Observation. | Combination of interview and observation. |
| **2/5** |  | Suppose a study on the topic of “trust in professional groups” is presented in daily newspapers. Which representation would you find ethically incorrect? | If only part of the study is presented, e.g., certain occupational groups are omitted. | if it is stated in which survey period the study took place. | If information on sample size, method, and target group is provided. | If it is not stated whose idea the study was, even if the person was not involved in the study. |
| **Unit/**  **Question Number** |  | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **3/1** |  | Which of the following is a frequently discussed criticism of qualitative research? | Small sample size. | Preparation of transcripts after interviews. | Low qualitative researcher knowledge regarding quantitative methods. | Low researcher expertise. |
| **3/2** |  | Which type of observation is involved when a supermarket shelf is replicated in a test studio and the behavior of the study participants is observed? | Laboratory observation. | Field observation. | Direct observation. | Environment monitoring. |
| **3/3** |  | Which method should be used when asking about the condition of the study participants on sensitive topics (e.g., illnesses or personal assets)? | Interviews. | Group discussions. | Observation. | Document analysis. |
| **3/4** |  | Which of the following assertions is true about qualitative content analysis? | It incorporates context in addition to what is said. | It excludes any theory. | It does not try to understand how people have felt in situations. | It exclusively refers to assertions that come about spontaneously; other content is deleted. |
| **3/5** |  | How can the quality criterion of objectivity be taken into account in qualitative research? | By documenting all process steps and justifying interpretations. | By making all results representative. | By interviewing only a specific target group. | By attempting to represent qualitative results quantitatively. |
| **Unit/**  **Question Number** |  | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **4/1** |  | Which of the types of standardized interviewing techniques are not among the typical methods for standardized interview research? | Secondary data analysis. | Written questionnaire test. | Verbal interview. | Standardized interview. |
| **4/2** |  | Which is the purpose of pretests? | To comply with quality and ethical standards. | To meet timeframes and monetary budgets. | For interviewers to practice interview techniques. | For study participants and interviewers to become acquainted. |
| **4/3** |  | Which does operationalization refer to? | Operationalization refers to the process of measuring  theoretical characteristics and questions. | Operationalization refers to adherence to ethical  standards. | Operationalization refers to the definition of a framework for  time and money budgeting. | Operationalization refers to adherence to operational  characteristics of a survey study. |
| **4/4** |  | Which does the non-response problem refer to? | The non-response problem refers to the problem that some people do not respond to or refuse to participate in a survey. | The non-response problem refers to the problem of incorrect answers not being allowed to be included in the analysis of the survey. | The non-response problem refers to the problem that some questions are asked incorrectly and therefore no answer can be given. | The non-response problem refers to the problem that some studies do not provide meaningful results. |
| **4/5** |  | Which describes the term population of a statistical data collection? | The population is the number of all records matching a research question in a statistical data collection. | The population is the number of records actually collected in a statistical data collection. | The population is the number of uncollected records in a statistical data collection. | The population is the number of all records to be collected in a statistical data collection. |
| **Unit/**  **Question Number** |  | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **5/1** |  | Which well-known experiment in the natural sciences can be used to empirically verify, i.e., by measurement, the Gaussian limit theorem? | The “Galton board” experiment can be used to verify the Gaussian limit theorem. | The “Inclined plane” experiment can be used to verify the Gaussian limit theorem. | The “Double slot” experiment can be used to verify the Gaussian limit theorem. | The “Bose-Einstein condensation” experiment can be used to verify the Gaussian limit theorem. |
| **5/2** |  | Which relationship does the principle of causality establish in the applied sciences? | The principle of causality establishes a relationship between cause and effect. | The principle of causality establishes a relationship between questions and responses. | The principle of causality establishes a relationship between interviewing and statistical analysis. | The principle of causality establishes a relationship between survey research and scientific research. |
| **5/3** |  | Which of the sciences listed is not an exact science? | Medicine is not an exact science. | Physics is not an exact science. | Mathematics is not an exact science. | Chemistry is not an exact science. |
| **5/4** |  | Which of the research designs listed is a complete research design? | Spectral measurement by laser is a complete research design. | Artificial intelligence models are complete research designs. | Monte Carlo simulations  are complete  research designs. | Numerical experiments are complete research designs. |
| **5/5** |  | Which distribution does the measured values of the ball positions in the Galton board experiment approximately follow? | The spatial distribution of the measured values in the “Galton board” experiment approximately follow a Gaussian distribution. | The spatial distribution of the measured values in the “Galton board” experiment approximately follow a Bernoulli distribution. | The spatial distribution of the measured values in the “Galton board” experiment approximately follow a Planck distribution. | The spatial distribution of the measured values in the “Galton board” experiment approximately follow a rectangular distribution. |
| **Unit/**  **Question Number** |  | **Question** | **Correct answer** | **Incorrect Answer** | **Incorrect Answer** | **Incorrect Answer** |
| **6/1** |  | Which of the methods listed cannot be applied to raw data? | Meta-analysis. | Error correction. | Compression. | Weighting. |
| **6/2** |  | Which of the methods listed cannot be used to generate secondary data from primary data? | Measurement. | Mapping of study questions. | Definition of a new population. | Sampling. |
| **6/3** |  | Which functional relationship is obtained by linear regression? | A straight line through measuring points. | An exponential function. | A parabola. | A sine function. |
| **6/4** |  | Which does the term “coherence” denote in the social science context? | Relationships between individual topics. | Relationships between individuals. | Relationships between individual interviewers. | Relationships between individual surveys. |
| **6/5** |  | Which is the term for the error in a sample with a significance level of 1%? | Alpha error. | Beta error. | Gamma error. | Delta error. |