

RESEARCH QUESTIONS

RESEARCH QUESTIONS

- reflect the problem that the researcher wants to investigate
- are interrogative statements that represent “an extension of the statement of the purpose of the study in that it specifies exactly the question that the researcher will attempt to answer”
- are formulated based on theories, past research, previous experience, or the practical need to make data-driven decisions in a work environment
- serve as signposts for the reader, foreshadowing the specific details of the study

ROLES

- provide a framework for conducting the study
- help the researcher to organize the research and give it relevance, direction, and coherence
- help to keep the researcher focused during the course of the investigation
- delimit the study, revealing its boundaries
- give rise to the type of data that are eventually collected

QUANTITATIVE RESEARCH QUESTIONS

- tend to be very specific in nature
- fall into one of three categories:
 - (a) descriptive,
 - (b) comparative, and
 - (c) relationship

DESCRIPTIVE QUESTIONS

- simply seek to quantify responses on one or more variables
- can begin with the words “What is...?” or “What are...?”

EXAMPLES

- What are the reasons that graduate students give for enrolling in a distance education course?
- What is the graduation rate of doctoral students in a distance education program?
- What is the average grade point average score of students enrolled in a doctoral-level distance education program?

COMPARATIVE QUESTIONS

- seek to compare two or more groups on some outcome variable (i.e., dependent variable).
- use words such as “differ” and “compare.”
- (involving two groups) usually can be written using the following form: “What is the difference in _____ (dependent variable) between _____ (Group 1) and _____ (Group 2)?”
- can easily be extended for three or more groups by replacing the word “between” with “among.”

EXAMPLES

- two groups

“What is the difference in attitudes towards mathematics between first-grade and third-grade students?”

“What is the difference in levels of statistics anxiety between undergraduate male and female students?”

- causal

“What is the effect of cooperative learning techniques on the academic achievement of middle school students?”

[implicitly comparative in nature (e.g., comparing middle school classes in which cooperative learning techniques are used versus middle school classes in which cooperative learning techniques are not used)].

RELATIONSHIP QUESTIONS

- are concerned with trends between (or among) two (or more) variables.
- often use words such as "relate," "relationship," "association," and "trend."
- (involving two variables) usually can be written using the following form:
"What is the relationship between _____
(independent variable) and _____
(dependent variable) among _____
(population)?"
- can easily be extended for three or more variables by replacing the word "between" with "among."

EXAMPLES

- What is the relationship between age and job satisfaction among registered nurses?
- What is the relationship between parental educational levels and levels of depression among high school students?

- Good quantitative questions should identify the population and dependent variable(s), whether they represent descriptive, comparative, or relationship research questions. If they represent comparative or relationship research questions, then the independent variable(s) also should be identifiable.

QUALITATIVE RESEARCH QUESTIONS

- are “open-ended, evolving, and non-directional” (Creswell, 2008)
- tend to seek, to discover, to explore a process, or describe experiences
- typically describe, rather than relate variables or compare groups
- avoid the use of words such as “affect,” “influence,” “compare,” and “relate.”
- tend to address “what” and “how” questions

drive the research design (e.g., historical, case study, ethnography, phenomenology, grounded theory, autoethnography).

- ethnographic study

“How do gang leaders select gang members?”.

- grounded theory study

“What are the constructions of survival and coping by men who survive prostate cancer?”

- phenomenological study

“What are the experiences of students diagnosed with attention deficit hyperactivity disorder?”

- case study

“What are the implications of the No Child Left Behind Act on high school principals from Duval County?”

- historical study

“What events led to the Brown versus Board of Education ruling?”

- autoethnographical study

“How has my attitude toward mixed methods research evolved as I completed my doctoral program?”

Qualitative research questions can be comparative in nature.

First, qualitative researchers can compare study participants in a pairwise manner, leading to pairwise sampling designs.

Example:

“To what extent are the experiences during breast cancer treatment consistent across all study participants?”

Second, researchers also could compare two or more subgroups, culminating in subgroup sampling designs.

Example:

“To what extent are the perceptions of women regarding the level of mentorship at graduate school similar for male and female graduate students?”

Third, qualitative researchers can compare two or more members of the same subgroup, wherein one or more members of the subgroup represent a sub-sample of the full sample, leading to nested sampling designs. For example, a qualitative researcher might be interested in comparing the voices of key informants, who are selected from the overall set of research participants, to the voices of the other non-informant sample members. Example:

“To what extent are the voices of the key informants regarding their level of distrust of their local politicians similar to the voices of the non-informant sample members?”

Finally, qualitative researchers can compare two or more subgroups that are extracted from different levels of a study. For instance, a qualitative researcher might be interested in comparing the perceptions of students regarding standardized tests to those of their teacher(s), leading to multilevel sampling designs.

Example: "To what extent are perceptions of students regarding standardized tests similar to those of their teachers?"

