

DESCRIPTIVE RESEARCH QUESTIONS AND DESIGNS

Descriptive research is used to answer descriptive research questions:

What is happening? How is something happening? Why is something happening?

Examples:

- *What* is the average age at which children learn to walk?
- *What* is the association between birth order and social skills?
- *How* does self esteem differ among adolescents who differ in the timing of their puberty?
- *Why* does school climate influence student achievement?

Descriptive research designs include the following:

1. Simple descriptive

- data are collected to describe
- researcher administers a survey to a random sample of autistic children in order to describe the characteristics of the population of autistic children

Ex1: What percent of children are autistic?

Ex2: Given the spectrum of disorders within autism, what is the range of functioning?

2. Comparative descriptive

- describes two or more groups for comparison
- researcher administers a depression inventory to popular, rejected, and neglected students

Ex1: What are the depression levels of popular vs. rejected, vs. neglected students?

Ex2: What is the percentage of male vs. female students who are popular?

Ex3: What is the percentage of males vs. females who are depressed?

Hint: It may help to think about different levels/categories of your topic and/or different subject variables.

3. Correlational

- describe the statistical association between two or more variables
- researcher measures the student-teacher ratio in each classroom in a school district and measures the average student achievement on the state assessment in each of these same classrooms. Next the researcher uses statistical techniques to measure whether the student-teacher ratio and student achievement in the school district are connected numerically; for example, when the student-teacher ratio changes in value, so does student achievement.

Note: the researcher did *not* manipulate the student-teacher ratio, they simply measured/captured a pre-existing *value*.

Ex1: Is there a association between depression and unhealthy lifestyle behaviors among youths

Ex2: What is the relationship between severity of autism and others' helping behaviors (the more severe the autism the more or less others help you)?

Ex3: What is the relationship between GPA and degree of popularity?

EXPERIMENTAL RESEARCH QUESTIONS AND DESIGNS

Experimental research is used to answer causal research questions:

Does something cause an effect? For example, does a low student-teacher ratio cause higher student achievement?

The easiest way to devise an experimental question may be to think about a question in which you can CONTROL, MANIPULATE, or ASSIGN the independent variable. This is often done by assigning groups to treatment conditions, intervention groups, giving some information and not others.

Experimental research designs include the following:

1. True experimental (randomized trials)

- researcher manipulates or varies an independent variable and measures its effects on one or more dependent variables
- Participants divided into groups. The treatment group receives a special reading program. Participants in the control group do not receive the treatment. Reading ability is assessed.
- The effects of emotional counseling on the psychological well-being of children from divorced families.

2. Quasi-experimental

- random assignment not possible (e.g., IV includes race, sex, SES, paranoid vs. not)
- Examining the academic achievement of two groups, one that goes to tutoring and one that doesn't. -- Here the *groups* already existed, they either attended tutoring or not and were placed in groups based on this pre-existing condition.
- The effects of academic counseling on the academic achievement of children from divorced vs. non-divorced families. *Here an independent variable that cannot be randomly assigned (family status = divorced or not) is added.*