**Quantitative designs**

**Survey**

* Surveys are conducted to quantitatively understand and determine the characteristics of a population including their behaviours, their opinions or their attitudes. The data collected are subjective because they come directly from the participants.
* Predominantly, surveys rely on questionnaires and interviews. The answers to the questions asked to the respondents is the data of the study.
* Surveys can be used in confirmatory research to test hypotheses preconceived before research is started; however, contrary to experimental research, no intervention is conducted to manipulate variables. They also can be used in exploratory research where the purpose is to gain an adequate understanding of the researched topic.
* Data can be collected life, by mail as for questionnaires; and face-to-face or by telephone for interviews.

**Experimental research**

* Experiments aim primarily at examining the effects of variable/s manipulations on dependent variable/s.
* In experimental research, the researcher administers an intervention for a period of time. A variable or a group of variables are manipulated; then, outcomes of the study are examined.
* Experimental research is not limited to describing phenomena as they occur, identifying relationships or examining associations between variables; experimental research goes beyond all this to explain what causes some variables.
* The manipulated variable is referred to as the independent variable while the outcome observed at the end of the treatment is called the dependent variable.
* Comparison is an important component in experimental research. To see what difference the treatment has brought, a comparison is carried out between data collected from the experimental group with the ones collected from the control group.

**Causal comparative research**

* The similarity between experimental research and causal comparative one is the focus on causality and on identifying the effects of some variables on others.
* The main characteristic of causal comparative research that differentiates it from experimental research is that it examines variables that had already occurred before the study is started. The researcher handles the independent and dependent variables in a retrospective approach.
* Due to some constraints, it is impossible and unpractical to carry out a treatment with experimental groups. Some variables like ethnicity, gender, nationality, or cultural characteristics cannot be manipulated, so in this case a causal-comparative study is favoured over experimental one.

**Correlational research**

* correlational research examines possible relationships between two or more variables. They do not explain causal relationships, but they can serve as a good foundation for further experimental or causal comparative research. Another name used to refer to this research is associational research. Because the purpose in this type of research is limited to the description of the relationship nature without any variable manipulation, correlational research also falls in the category of descriptive research.
* Correlational research investigates whether the relationship, if any, is positive or negative.
* Data collection commonly used in correlational research are tests and questionnaires.
* A relationship is said to be positive when an increase in scores of one variable is associated with an increase in the other variable scores. A decrease noticed in both associated variables is also considered an indicator of positive correlation.
* In contrast, a negative correlation is identified if both variables are changing in a different direction.