* Mixed-methods research studies combine both quantitative and qualitative data.
* Mixed-methods studies include at least one quantitative strand and one qualitative strand.
* Six core characteristics help define mixed-methods research:
  + Persuasively and rigorously collecting and analyzing both qualitative and quantitative data
  + Mixing the two forms of data either simultaneously by combining or merging them, sequentially by having one build on the other, or by embedding one within the other
  + Giving priority to one or both forms of data
  + Using these procedures in a single research study or in multiple phases of a program of research
  + Framing the procedures within philosophical worldviews and theoretical lenses
  + Combining the procedures into specific research designs that direct the plan for conducting the study
* When using a mixed-methods approach to conducting a research study, a researcher must provide justification for this choice. Six examples of research problems that are suited for mixed-methods techniques are as follows:
  + A need exists because one data source may be insufficient.
  + A need exists to explain the initial results.
  + A need exists to generalize exploratory findings.
  + A need exists to enhance a study with a second method.
  + A need exists to best employ a theoretical stance.
  + A need exists to understand a research objective through multiple research phases.
* The mixed-methods research process closely parallels the generic research process; however, there are some additional, unique steps:
  + Determining if a mixed-methods study is feasible
  + Developing a clear rationale for doing a mixed-methods study
  + Identifying the appropriate mixed-methods design
* There are numerous typological schemes for classifying mixed-methods research designs.
* Mixed-methods designs are differentiated by
  + the priorities assigned to the two types of data,
  + the sequence in which the two types of data are collected, and
  + the nature of the analytical procedures.
* The four most common and basic mixed-methods research designs are
  + the convergent parallel design, or simply the convergent design;
  + the explanatory sequential design, or simply the explanatory design;
  + the exploratory sequential design, or simply the exploratory design; and
  + the embedded design.
* The researcher must make four key decisions when deciding on an appropriate mixed-methods research design:
  + The level of interaction between the research strands—independent or interactive
  + The relative priority of the quantitative and qualitative research strands—equal prioritization, quantitative prioritization, or qualitative prioritization
  + The timing of the research strands—concurrent, sequential, or multiphase combination timing
  + The procedures for mixing the two strands—defining the point of interface (during interpretation, during data analysis, during data collection, or at the level of research design)
* Mixed-model studies involve the mixing of quantitative and qualitative approaches in all phases of the research process.
* Determining the validity of mixed-methods research parallels the process of determining the validity of both quantitative and qualitative research; however, several additional considerations must be met.
* The strengths of mixed-methods research include that it can help explain, clarify, and extend results of research; it can answer research questions that may require both types of data; one type of data and analysis may be used to offset the weaknesses of the other; and it is seen as more practical.
* Limitations of these approaches include that it is more time-consuming, researchers may be limited by their own comfort and expertise, and mixed-methods research may still need to be justified to some audiences.