

## 4.12 Collecting and analysing data

# Checklist

## What you should know

By the end of this subtopic you should be able to:

- design valid questionnaires and surveys by
  - considering whether they are biased or unbiased
  - using structured and unstructured questions
  - asking precise questions
  - considering whether a question is personal and explaining its purpose if so
  - selecting the relevant variables to investigate
- categorise numerical data in a  $\chi^2$  table and justify the chosen intervals
- choose an appropriate number of degrees of freedom when estimating parameters in a  $\chi^2$  goodness-of-fit test
- define statistical reliability
- define statistical validity
- give examples of tests that are used to measure statistical reliability and statistical validity.

