Statistics
Chapter Two

- **Frequency Distribution**: a systematic arrangement of data values, with a count of how many times each value occured in a data set

- Elements of a typical frequency distribution
  → Data values → Absolute frequencies → Cumulative relative frequencies → Relative frequency (%)
  → Cumulative frequencies do not make sense w nominal data

- When a variable has many different possible values, a regular frequency distribution would be lengthy (ex weight)
  → then a grouped frequency distribution would make more sense

- In a grouped frequency distribution contiguous values get grouped into sets (class intervals)
  → Each class must be mutually exclusive ex. 15,000 - 19,999

- **Bar graph**: used for nominal (and many ordinal) level variables
  → horizontal x-axis specifies categories & vertical Y axis specifies either frequencies or %, bars do not touch

- **Pie chart**: used for nominal & ordinal level variables.

- **Histograms**: used for interval & ratio level data, bars touch one another, discrete variables

- **Frequency polygon**: for interval & ratio level data, preferred for continuous, connected data not bars

Chapter Two

- Shape of distribution > Modality
  → Unimodal : 1 Peak → Bimodal : 2 peaks → Multimodal

- Symmetric distributions : the two halves of the distribution folded in the middle are identicle

- Asymmetric distributions : Peaks are "off centre" and there is a tail trailing off
  → Positive skew : longer tail trails off to the right (fewer people w higher values)
  → Negative skew : longer tail trails off to the left

- Skewness index quantifies the degree of skewness
  → If skewness index is less than 2x the value of its standard error, distribution can be treated as not skewed (in Spss)

- Kurtosis : degree of pointedness of flatness of the distribution peak
  → leptoKurtic : very thin, sharp peak
  → PlatyKurtic : flat peak
  → MesoKurtic : neither pointy nor flat
  → Positive values : greater peak , Negative values : flatter