Collecting and classifying data

Tuesday, 29 January 2019   3:10 PM

By the end of the lesson I would hope that you have the knowledge and understanding for the following points:
- Know what it means to describe data as:
  - Numerical
  - Categorical
- Know how to break down Numerical Data into the following classifications
  - Discrete
  - Continuous
- Understand the difference between the following terms:
  - Primary Source
  - Secondary Source
- Know what the following terms mean:
  - Sample
  - Population
  - Census
  - Observation

RECAP

There isn't much of a recap with this lesson as it's the first time we have studied this particular area of the Victorian Curriculum. Whilst new, it's actually pretty easy! All we need to do is remember some important key words.

Once we learn the **vocab** we can apply this understanding to questions
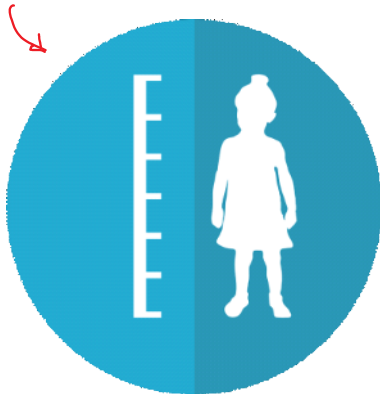
Types of data: Numerical

A variable is something which can be measured or observed.
I might measure my height, the time it takes to run 100m, the weight of a newborn baby.

Anything with numbers in it is called **Numerical.**
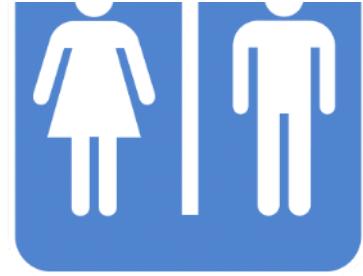
numerical

numbers

Types of data: Categorical

Data which doesn't have numbers is called categorical.

Examples of categorical data might include:
- the colours of peoples eyes,
- the states people live in, or
- the gender someone is.

Different types of Numerical Data: Discrete

Discrete data can only take whole number values.
If you can measure something and have decimals then it's not discrete.

Examples might include:
- The number of people in the classroom
- The size of shoes
- The number of TV sets in a house

Different types of Numerical Data: Continuous

Continuous numerical data can take values which can have decimals.

Examples might include:
- Time
- Distance
- Weight
- Heights

Can we trust the data?

If we were to hear a rumour from a friend, of a friend of a friend … would you believe it?
Would it be the same rumour which was spread?
Or … do you think it might have changed?

Game: Chinese Whispers

When we are the ones who hear the rumour first hand or collect the data by speaking to someone, then we call it **primary** data.

Secondary data is information which we might not have collected but have seen somewhere else. Collected by someone else and published by them.

Example might include:
- Newspaper articles
- Textbooks
- Internet blogs

If we use a newspaper article in our data, then it is a secondary source.

Finally …

The last things we need to know is the words below:

Population: A group of people who have something in common
  E.g. All the Year 12 students in Australia

Sample: When we ask a small group of a much larger population
  E.g. All the Year 12 students in Peninsula Grammar

Census: When all the people in a population are surveyed

Observation: When we can't choose the people to survey, and only ask people who are close to us, this is called an observation.