
Exercise
Investigation
twinkl

Degree of Trust

Scientists conduct lots of investigations have a big impact on living things. For example, scientists conduct investigations that tell us what type of food humans should eat and what chemicals are safe to use on plants.

Because we act on scientific data, we need to make sure that we have a high degree of trust in it before making our conclusions. This is particularly true if we are going to recommend that others act or behave in a particular way based on our results.

How can we ensure there is a high degree of trust in our results?

Degree of Trust

Be **Objective:** have you reported the results honestly? Have you included all the results even when they did not match your prediction? Did you have a control group?

Accuracy: was your measuring equipment accurate?

Reproducibility: can your investigation be repeated? Have you repeated your results? Did you get the same or very similar results?

Consensus: this does not mean that all the data has to show the exact same results, but if the majority of other investigations show results that are the same or very similar then we can have a higher degree of trust in our results. If your results are completely different to all the other datasets for similar investigations, then it is necessary to consider why that is.

Sample Size: this is how many were included in your investigation. The more data you have the more likely it is to show the 'real' picture.