



“Eating blueberries is really good for your health”  
A Supermarket Manager

If each of these people said this, who would you trust?



“Blueberries are great – they can help you stay healthy”  
A Chef

“Blueberries are really good for you”  
Your Teacher



“Blueberries are good to include in your diet”  
A Food Scientist



# Bias



“Eating blueberries is really good for your health”  
A Supermarket Manager



“Blueberries are good to include in your diet”  
A Food Scientist

# How can we avoid being taken in by bias?

- Think
- Ask



# A bowl of blueberries keeps the brain active in the afternoon

By DAVID DERBYSHIRE FOR MAILONLINE  
UPDATED: 10:02, 14 September 2009



Munching a bowl of blueberries for breakfast can stop you flagging in the afternoon, a new study shows.

Researchers found that a large helping of the fruit - described by some as nature's 'superfood' - boosts concentration and memory up to five hours later.

In tests, volunteers who drank a blueberry smoothie in the morning did much better at mental tasks in the mid afternoon than people who had an alternative drink.

British scientists who made the discovery believe the antioxidants in blueberries stimulate the flow of blood and oxygen to the brain - and keep the mind



© Corbis  
**Boost: Blueberries or other foods rich in anti-oxidants could be used to increase brainpower when taking exams**

“Researchers found that a large helping of the fruit ... boosts concentration and memory...”

Do you think this news headline might be biased? Why/why not?

Daily Mail,  
14<sup>th</sup> September 2009



“After eating their daily dose of berries, the rodents learned faster, had better short-term memory and had improved balance and co-ordination”

**Researchers from Tufts University found** that blueberries don't simply improve memory – they can actually reverse memory loss. A study published in the *Journal of Neuroscience* found an extract of blueberries eaten every day led to a reversal of nerve cell damage in rats. After eating their daily dose of berries, the rodents learned faster, had a better short-term memory and had improved balance and co-ordination. The humble blueberry is truly a superfood for your brain cells.



Daily Telegraph  
23<sup>rd</sup> January 2015

# What claims are being made here?



Do you believe them?

**“Eating blueberries  
improves your memory”**

How could we find out if the claim is true?

# **“Eating blueberries improves your memory”**

We can carry out a trial to test this claim.

We need to try to make sure it is fair.

We need to have something we can compare.



# Our trial

- One group will eat some blueberries, one group won't.
  - (The no-blueberries group can have some at the end of the session if they want.)
- You don't have to participate
  - If you don't like blueberries, you can be in the 'no blueberries group'.
  - If you would rather not take part, that's fine too, but I hope you would like to be involved.

# Groups

- Pick a card – this will tell you which group you are in.
- Group A won't eat the blueberries
- Group B will

# Memory test

- On the tray are some items.
- I'm going to give you 1 minute to look at the items – try to remember what is there.
- I'm then going to cover the tray.
- Write down the names of as many of the items as you can remember in 3 minutes.  
(Spelling doesn't matter in the memory test.)



# Calculation

- Count how many items you remembered correctly
- Write the number on your piece of paper
- Group A – work out the average of your scores
- Group B – work out the average of your scores





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What can you find out **about the trial** that these researchers did from the newspaper summary?

# Finding out a bit more

Look at the press release from the university

- What did the rats eat?
- What did the rats do?
- What was the difference between the groups of rats?

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Is the press release saying the same thing as the newspaper article?

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# Our results

<b>Group</b>	<b>Average in first memory test</b>	<b>Average in second memory test</b>	<b>Difference between memory tests</b>	<b>% change (difference / first test x 100)</b>
<b>A</b>				
<b>B</b>				

# Summary

- Can you always believe things you read in newspapers or things that are claimed by people on TV?
  - Think about the bias
  - Think about what trial was done
  - Ask for the evidence



# Allocation

