

The Maths behind mobile phone ‘Screentime’

Lesson Plan 1

Main focus of activity:

What is the truth around mobile phone ‘screen time’ usage amongst Year 11’s in the UK?

In today’s lesson we are going to look at this.

Mathematical concepts covered:

- To be able to calculate the cumulative frequency in a table
- To be able to plot a cumulative frequency curve
- To be able to estimate the median and quartiles from a cumulative frequency curve
- To be able to construct back to back box plots
- To be able to make good decisions based on averages
- Cumulative Frequency • Averages • Boxplots • Inverse Proportion

Suggested learning activities

Introduction

Study cumulative frequency tables to show ‘Screen time’ behaviour for pupils within three contrasting Schools.

Main part of lesson

For each go through the cumulative frequency graphs and curves on the PPT file.

Discussion point

- Which school has the most screen time on average?
 - Could people answer this in different ways?
- Can you create a back to back box plot for all three schools for which we have data?
- Can you find all the averages for the three schools?