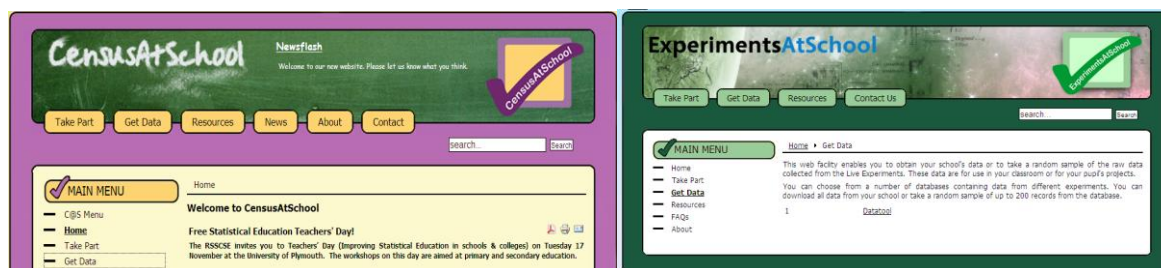


## ExperimentsAtSchool Datatool

The **datatool** allows you to pick a random sample of data from the *CensusAtSchool* database, to select variables and then to analyse these using charts, graphs, contingency tables, measures of location and spread. It can draw all sorts of graphs and allows you to compare girls against boys etc.

Open from the *CensusAtSchool* website [www.censusatschool.org.uk](http://www.censusatschool.org.uk) or access the Data Tool from [www.experimentsatschool.org.uk](http://www.experimentsatschool.org.uk) (Get Data, Data Tool).



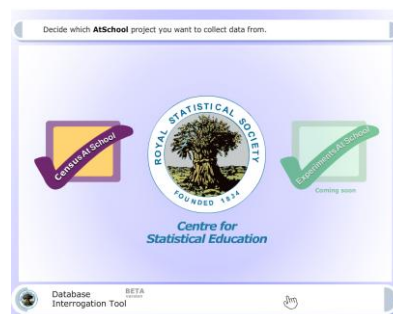
### Select:

- **Get Data**
- **DataTool**
- **Start the DataTool**
- **Click on ExperimentsAtSchool**

Get Data

DataTool

Start the datatool



**Now you need to select the experiment you wish to analyse.**

**Task 1:** Is it easy to estimate an angle?

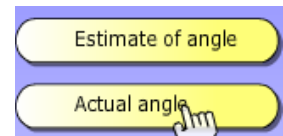
i. Choose **Angle estimation**.



ii. Click **next**.

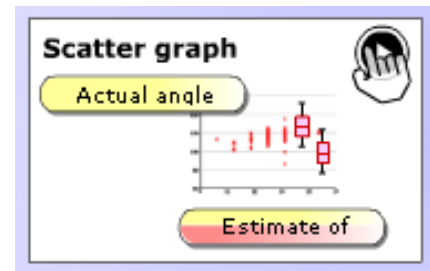


iii. Pick up the **Estimate of angle** and **Actual Angle** tag and put it on the left hand side (under **Variables**), click **next**.



iv. We want a random sample of 100 from the whole database so click **next** again.

v. Now pick up the **Estimate of angle** and **Actual angle** tags and put them on the axes of the Scatter graph.



Click the arrow and your scatter diagram should appear.

**Question 1** Do most people estimate well?

Is it easier to answer this question with the Actual angle or the Estimate of the Angle on the vertical axis?

**Question 2** Do people tend to over or under estimate?

Now use the **Resample** button to see if another random sample of 100 people give a similar answer to the first 100. This is in Show **Options**.



Try this another time (you have to wait 20 seconds between samples)



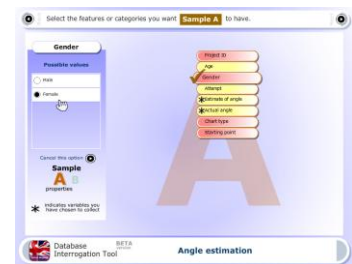
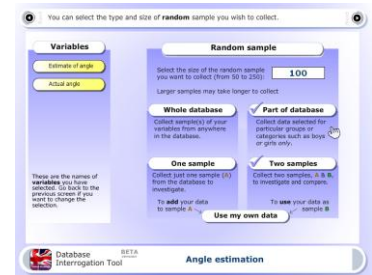
**Question 3** Is your new sample the same or different to your first?

Click back until you get to this webpage.



**Task 2:** Are females better at estimating angle size than males?

- i. Repeat steps i. to iii. from Task 1.
- ii. This time we want to sample from part of the database and we want 2 samples (male and female) next.
- iii. Click on Gender, Female, next.
- iv. Click on Gender, Male, next.
- v. Again we want a scatter diagram.



**Question 1** Are females better at estimating angle sizes than males?

**Question 2** How else might you display this data to help answer this question?

For more exercises and help on the Interrogation Tool for the *CensusAtSchool* data please see <http://www.censusatschool.org.uk/get-data/datatool>