

These notes are intended to give further information about how to answer the *CensusAtSchool* 2013-14 questions, first published September 2013.

Please note that if you want to check the online questions before having the students complete the task, use the word "TESTING" in the "School Name" box and then this row of data can be easily identified in your returned data.

Ideally, students should complete a hard copy of the questionnaire before completing the online questionnaire. In particular, all the body measurements should be completed in advance as this will help speed up the data entry session, which should take about 25 minutes in total. See the *CensusAtSchool Guide to Taking Measurements*.

Data Types in This Questionnaire

Q1, Q3, Q5, Q7, Q9, Q10, Q11, Q12, Q14 all give categorical nominal type data.

Q2 gives categorical ordinal type data.

Q4 (except for shoe size) gives numerical continuous data.

Q4 shoe size, Q6, Q8 and Q13 give numerical discrete data.

Q9 and Q14: Money used in calculations is a numerical continuous variable, but we are told to round it to numerical discrete values for the purpose of the question.

These questions can be used for the following types of graphical analysis:

Univariate data:

Type of Data	Line plot	Bar chart	Frequency Table	Histogram	Pie chart	Stem plot
Categorical	\checkmark	\checkmark	\checkmark		\checkmark	
Discrete numerical	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
Continuous numerical	\checkmark		\checkmark	\checkmark		\checkmark

For comparison purposes, students may use composite bar charts, back to back stem and leaf plots and back to back histograms.

Bivariate data:

Students can draw scatter plots to investigate relationships between two variables such as height and vertical reach etc.

Answering and Interpreting Questions

Question 4: The *CensusAtSchool Guide to Taking Measurements* contains very clear information and diagrams on how pairs of students can work together to compile the measurements required for this question. It might be worthwhile setting up the classroom in advance with five areas where learners measure their:

- a) height and vertical reach;
- b) foot length;
- c) open arm span;
- d) hand span;



e) pulse rate (question 8).

Question 5: The online version of this question has a drop-down menu listing a diverse range of musical instruments. The genre of music played also has a drop-down menu with a small selection of musical genres. When analysing students' data in class it might be worthwhile looking to see if there is a correlation between gender and the musical instrument or music genre.

Question 6: The footwear question might highlight some gender differences, both in terms of the total number of pairs of footwear and the types of footwear.

Question 8: The *CensusAtSchool Guide to Taking Measurements* contains very clear information on how to take pulse rate. There is also information in our <u>Just What is A Pulse</u> <u>Rate</u> document. The student data that is collected can open up discussion on how exercise requires more oxygen to be pumped around the body, hence the higher heart rate. What kind of variation is there among the class data? Can this variation be explained by fit people and unfit people having very different heart rates after exercise? (Yes.)

Question 9: Discuss the spread of data for the amount of money spent on credit each week. Is it a wide spread or do most students spend within a narrow range?

Questions 10a and 10b: These type of questions might throw up gender preferences for different food types or beverages (where mixed classes are involved). More generally, students' preferences for healthy food options versus the less healthy food options can be discussed.

Question 12a: Explain the difference between fiction and non-fiction books to students in case there is any confusion over the terminology.

Question 12b: The class data returned from this question might offer several discussion points – what percentage do not read books; Is there a gender preference for the type of book that is read?

Questions 12c and 12d: What percentage of the students has read a book or an e-book in the last month? It is important to emphasise that school books (both e-books and textbooks) are not to be included here. If there is a high percentage of students who have not done so, this question can open up a discussion as to the other things that students do with their time other than read books. The e-book question can lead to discussion about the prevalence of technology in students' lives. Are they using this technology to read e-books or are they still reading paper books?

Question 13: This question requires some introduction from the teacher. For example, ask students to consider if they trust the Garda Síochána as an institution or if they met a Garda



CensusAtSchool 2013-14 Questionnaire **Teachers' Notes**

on the street would you feel they could be trusted. Similarly for the other options, do you feel the content you view on the Internet is to be trusted? Do you feel that the politicians who represent us are trustworthy and do the right thing for people as a whole? If you met a politician at a school debate and you asked them to do something about the cuts to Education, do you feel they will listen? Are your views about individual politicians different to your views about political parties as a whole? It might be interesting to discuss the results for trust of classmates in particular.

Question 14: This question opens up potential discussion about students' economic independence and spending power. What percentage of the students do paid work?