

STATISTICAL INVESTIGATIONS

DATA SHEET

The table below shows part of the data that was randomly selected from the 2007 NZ Census at School database. Altogether in the sample there are 254 Year 11 students. When the sample was selected only the “questions about you” variables were included. The variables and survey questions asked are:

Variable	Survey Question
gender: boy or girl	1. Are you: male/female
age: in years	2. How old are you?
handed:	3. Are you right-handed, left-handed or ambidextrous? (An ambidextrous person is able to use their right and left hands equally well.)
languages:	4. In how many languages can you hold a conversation about a lot of everyday things?
height: in cm	5. How tall are you without your shoes on? Answer to the nearest centimetre.
right foot: in cm	6. What is the length of your right foot, without a shoe? Answer to the nearest centimetre.
armspan: in cm	7. What is your arm span? Answer to the nearest centimetre. (Open arms wide, measure distance from tip of right hand middle finger to tip of left hand middle finger.)
hairlength: in cm	8. What is the length of your hair? Answer to the nearest centimetre. (Pull one hair out from the back of your head and measure it.)

yr11aboutme.csv

	gender	age	handed	languages	height	rightfoot	armspan	hairlength
78	girl	15	right	1	164	25	182	43
79	boy	15	ambi	3	150	28	150	4
80	girl	15	right	1	168	22	171	23
81	girl	16	right	1	176	22	175	15
82	girl	15	right	4	153	25	20	30
83	girl	15	right	1	162	24	160	40
84	girl	15	right	1	157	27	155	31
85	girl	15	right	2	157	28	35	128
86	girl	16	right	2	159	25	169	44
87	boy	16	right	2	176	24	174	29
88	boy	16	right	2	186	34	200	4
89	girl	15	right	2	165	24	60	40
90	girl	15	right	2	162	26	174	44

TABLE 1: Part of the data table (total number of students in the sample is 254)

Your task is to pose questions about the 2007 NZ Census At School data using the variables given in the data sheet. You need to pose three summary type questions, three comparison type questions, and three relationship type questions.

EXAMPLE OF STUDENT RESPONSES

I wonder...

summary

- what the typical height of a year 11 girl is from the 2007 NZ c@s database
- what the typical right foot length for a 15 year old boys is in the 2007 NZ c@s database
- on average how many languages a year 11 can speak from the 2007 NZ c@s database

comparison

- if the typical height of a year 11 girl is higher than a year 11 boys from the 2007 NZ c@s database
- if on average year 11 girls speak more languages than year 11 boys from the 2007 NZ c@s database
- if the typical right foot length for year 11 boys is greater than the right foot length for year 11 girls from the 2007 NZ c@s database

summary

- how tall the tallest person is from a sample in the 2007 NZ c@s database
- what the shortest arm span of a 16 yr old girls is from a sample from the 2007 NZ c@s database
- how many 15 year old boys are over 160cm in height from a sample of the 2007 NZ c@s database

comparison

- if 15 year old girls are shorter than 15 year old boys in the 2007 NZ c@s database
- if 16 year old boys have a longer arm span than 16 year old girls from the 2007 NZ c@s database
- if 16 year old girls have a longer right foot than 15 year old boys

summary

- what is the height of the typical NZ year 11 student
- what is the average number of languages NZ year 11 students can hold a conversation in
- what is the length of hair of the typical NZ year 11 girl

comparison

- if NZ year 11 boys have greater armspans than NZ year 11 girls
- if NZ year 11 boys are taller than NZ year 11 girls
- if NZ year 11 15 year olds have shorter right feet than NZ year 11 16 year olds