## Spin Doctor

You need: a computer with Internet access (optional), a classmate

After Motutapu School's Room 5 students complete the online CensusAtSchool survey, they download a random sample of data from 25 other year 8 students. They decide to focus on TV and cellphones, so they delete all but the following information:

| Gender | TV in own <br> bedroom * | TV time <br> yesterday | Cell cost per <br> month (\$) | How monthly <br> cell cost paid |
| :---: | :---: | :---: | :---: | :---: |
| boy | no | $2: 00$ | 0 | NA |
| boy | yes | $1: 00$ | 10 | parent |
| boy | yes | $0: 00$ | 0 | NA |
| boy | yes | $1: 00$ | 10 | job |
| girl | yes | $1: 30$ | 0 | NA |
| girl | yes | $1: 30$ | 15 | parent |
| boy | yes | $2: 30$ | 0 | NA |
| girl | no | $1: 30$ | 20 | other |
| girl | no | $1: 00$ | 25 | parent |
| boy | no | $4: 00$ | 0 | NA |
| girl | no | $0: 30$ | 0 | NA |
| boy | yes | $2: 00$ | 0 | NA |
| boy | yes | $2: 00$ | 10 | pocket |
| boy | yes | $0: 30$ | 40 | job |
| girl | yes | $0: 30$ | 10 | pocket |
| boy | yes | $2: 30$ | 0 | NA |
| girl | no | $0: 00$ | 0 | NA |
| girl | yes | $0: 30$ | 30 | parent |
| girl | yes | $3: 00$ | 80 | parent |
| girl | yes | $2: 30$ | 10 | pocket |
| boy | yes | $3: 00$ | 0 | NA |
| girl | yes | $5: 30$ | 60 | parent |
| boy | no | $0: 30$ | 0 | NA |
| girl | no | $2: 00$ | 0 | NA |
| boy | no | $3: 00$ | 10 | parent |

* Most table headings differ from the online short forms.


1. Create a dot plot to show the time the random sample survey students spent watching TV:

2. Write two statements about what you notice from your dot plot.
3. The students in Room 5 examine the downloaded data and then write newspaper-style headlines. Here are some of their headlines:
i. Parents foot bill for children's texting habit
ii. Half of year 8 students say no to cellphones
iii. Television is cheap babysitter for boys
iv. Survey shows girls glued to screen
v. Survey shows children need daily TV fix
vi. TV holds little appeal for many young people
vii. Boys more likely to watch tube
viii. Girl wastes quarter of life on TV
ix. Girls fork out big bucks on cellphone habit
x. Boy exhausted after taking part-time job to cover cellphone debt.

Decide whether each of the above headlines is supported by the data in the table and list the evidence for your conclusion.

2. Discuss your conclusions with a classmate and see if you can reach agreement on these two questions for each headline:
a. Does the headline represent the data fairly?
b. Is there enough data to make this generalisation?
3. Choose two (or more) headlines that you can support or negate using the data. For each, create a graph that clearly shows the relevant information. Summarise in bullet form what the data and graphs show.
4. With a classmate, discuss the four columns (excluding gender) in the table. Which are most likely to contain unreliable data? Why?

In pairs or small groups, obtain your own samples from the most recent CensusAtSchool. Keep only the data relating to the use of media.
i. Together, decide on several investigative questions that you will try to answer from the data.
Create graphs and make calculations that can help you.
What conclusions can you reach?
ii. Pool your data with other groups. How does this change your conclusions?

