

Statistical Investigation/ Ngä Höpara Tauanga

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STEP 1: INQUIRY QUESTION- **pick one, you don't have to use one of these**

I wonder what age groups had more drownings in 2020 than previous years?

Were there certain years where certain age groups were more vulnerable to drowning?

I wonder if there has been any change in the age distribution of drowning victims over time?

I wonder if the number of drownings amongst the elderly changed over time?

STEP 2- DATA TABLE FOR 2015-2019 DATA

STEP 2- DATA TABLE FOR 2020 DATA

STEP 3- PIE GRAPH AND SCATTER PLOT FOR 2015-2019 DATA

STEP 3- PIE GRAPH AND SCATTER PLOT FOR 2020 DATA

STEP 4- ANALYSIS PT. 1 ON PAPER

- a) calculate the mean, median, mode and range of 2015-2019 data
- b) does the mean median or mode represent that data set best?
- c) calculate the mean, median, mode and range of 2020 data
- d) does the mean median or mode represent that data set best?

STEP 4- ANALYSIS PT. 2 /SURFACE LEVEL STATEMENT/IN GOOGLE SLIDES

Write a complete paragraph making statements about your graphs that you have made for you data. You only need to comment on data relevant to your questions. I.e. if your question was **I wonder what age groups had more drownings in 2020 than previous years?**

You might make a statement like **" according to my pie chart age 0-4 deaths increased from 3 drownings to 5 in 2020. That is roughly a 166% increase."** **do not make "I think" statements in this section, it is purely objective language.**

STEP 4- ANALYSIS PT. 3 / STORY BEHIND THE DATA / IN GOOGLE

SLIDES

Write a complete paragraph with statements that now say “I think”. You are now describing the story behind the data. You must include some research. For example if my question was wonder if the number of drownings amongst the elderly changed over time?

And my data shows that elderly are experiencing less drownings I may explain that in 2020 covid happened so not being able to travel or go places means less tourists on beaches. (I would need some data from the internet to back up this up so I'm not just making up random stuff)

OR maybe I think there are less drownings because of modern medicine and access to fitness programs, elderly are able to remain more athletic as they age. Also because of social media and internet there is more access to information and people are able to know more about water safety and which areas are safe to swim in.

STEP 5- CONCLUSION

Write a paragraph answering your questions. Summarise some key data points and ideas to backup your answer.

Example: I wonder what age groups had more drownings in 2020 than previous years?

In conclusion ages 0-4 and 20-30 had more drownings in 2020 than previous years. My pie graph showed a 13 and 18% increase in drownings for those age demographics. I believe because of *your theory here* has caused an increase in only those age groups. My scatter plot showed a weak positive trend meaning there is no clear correlation between age and drownings and it's due to unique outside factors and culture around certain age groups.....