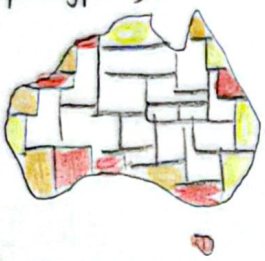
IDEAS

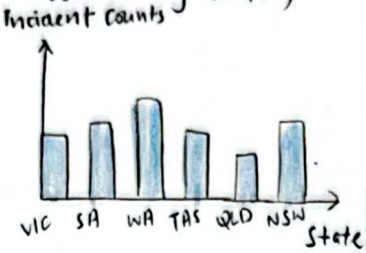
① Proportional Symbol Map (Incidents per Area)

② Chloropleth Map (Slope Types)

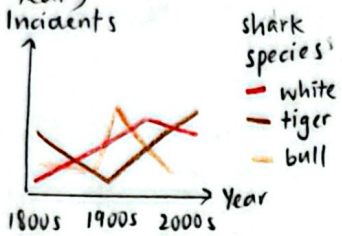


③ Dot Map (Every Shark Incident)

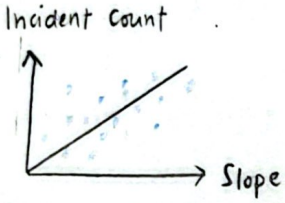
④ Bar Chart (Incident Counts by State)



⑤ Line Chart (Incident by Year)



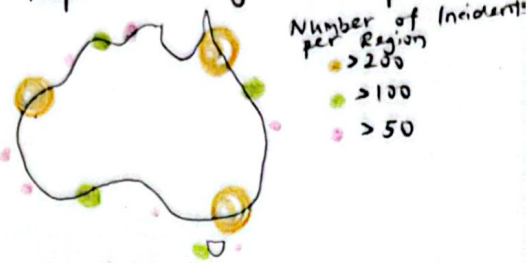
⑥ Scatter Plot



⑦ Pie Chart (Victim Activity)

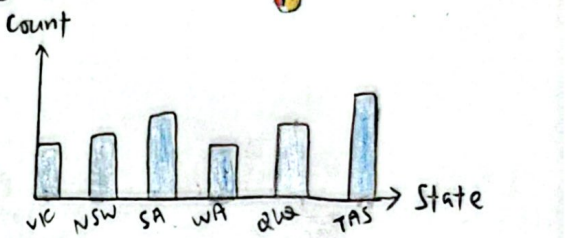
FILTER

① Proportional Symbol Map

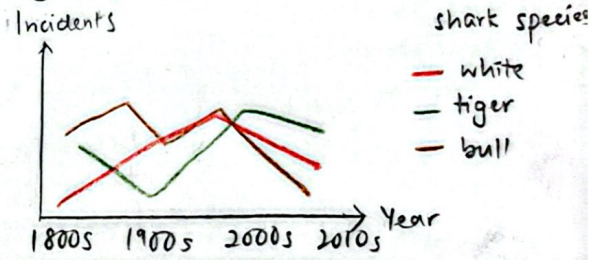


② Chloropleth Map

③ Bar Chart



④ Line Chart



QUESTIONS

- Are the chosen charts effectively conveying the story?
- what patterns can be seen regarding the relationship of shark attacks and beach qualities?
- Can incident density and slope data be combined to create an environmental risk index?

Author: Andrea Ong
Date: 7/10/2025
Title: Data Visualisation 11
5 Design Sheets
Sheet: 1

CATEGORISE

Spatial - Environmental

Key Variables:
Latitude, Longitude, State, Beach ID, Slope Gradient

↓

Human - Behavioural

Key Variables:
Activity Type, Time (month, year)

↓

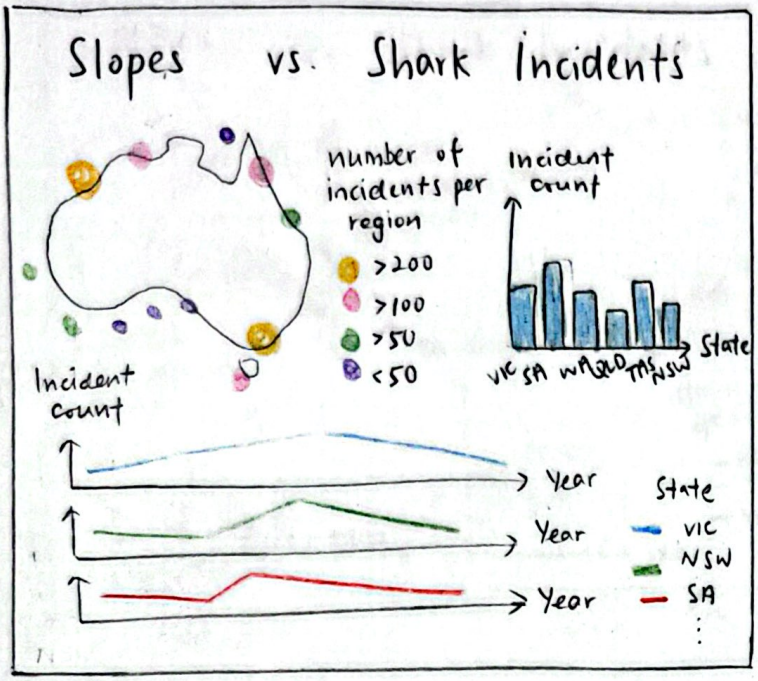
Biological - Outcome

Key Variables:
Species, Fatal / Non-Fatal, Incident Density

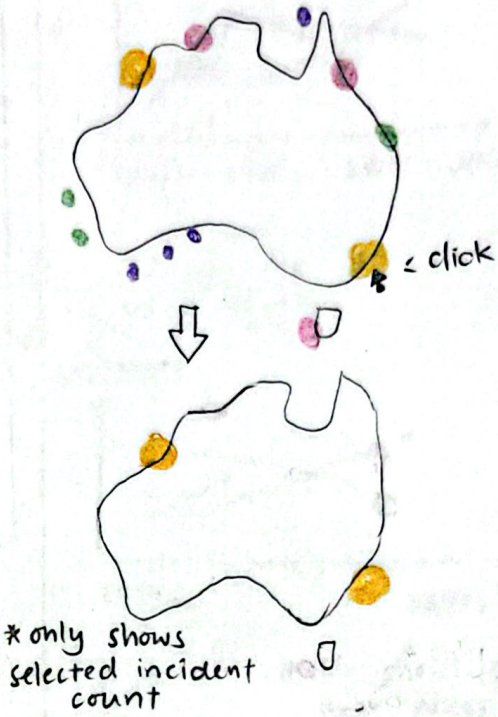
COMBINE & REFINE

combine chloropleth & proportional symbol maps to compare incidents and slope types

LAYOUT



OPERATION

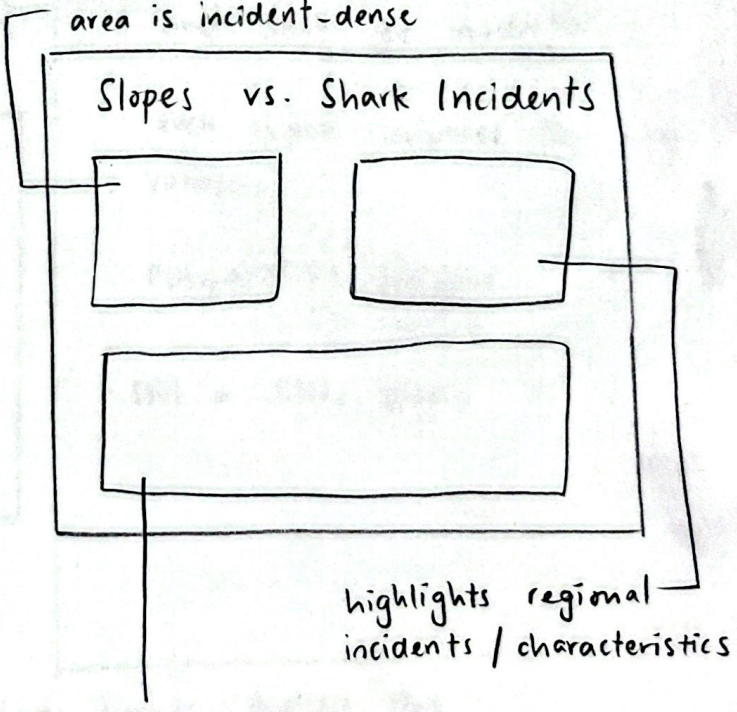


DISCUSSION

- map should take up more space to read easier
- bar segments in bar chart highlights how each state's risk profile differs
- connects geographical, environmental, and time
- could be too simple

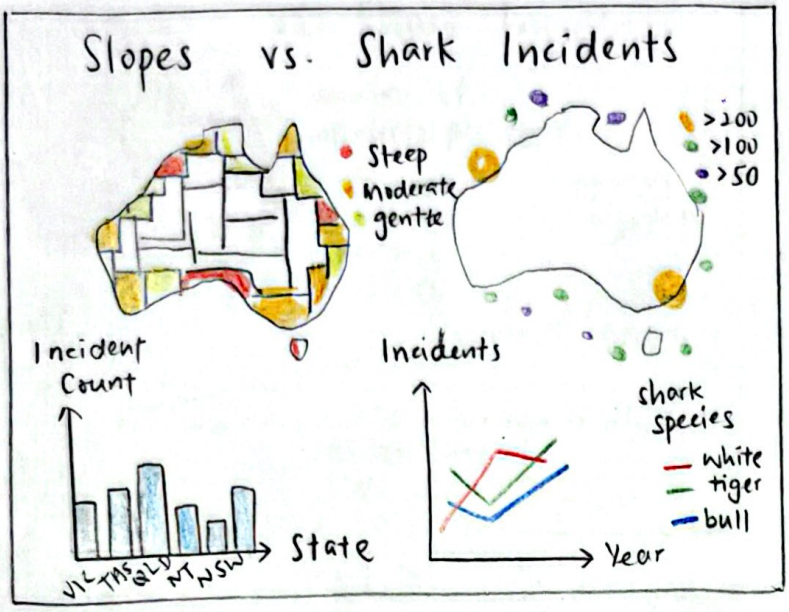
FOCUS

* boxes represent charts in layout section

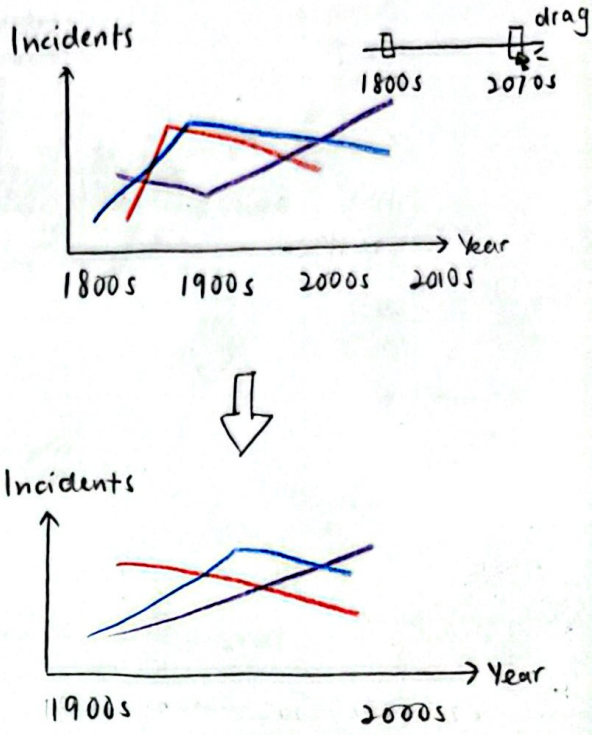


Author : Andrea Ong
Date : 7/10/2025
Title : Data Visualisation II
5 Design Sheets
Sheet : 2

LAYOUT



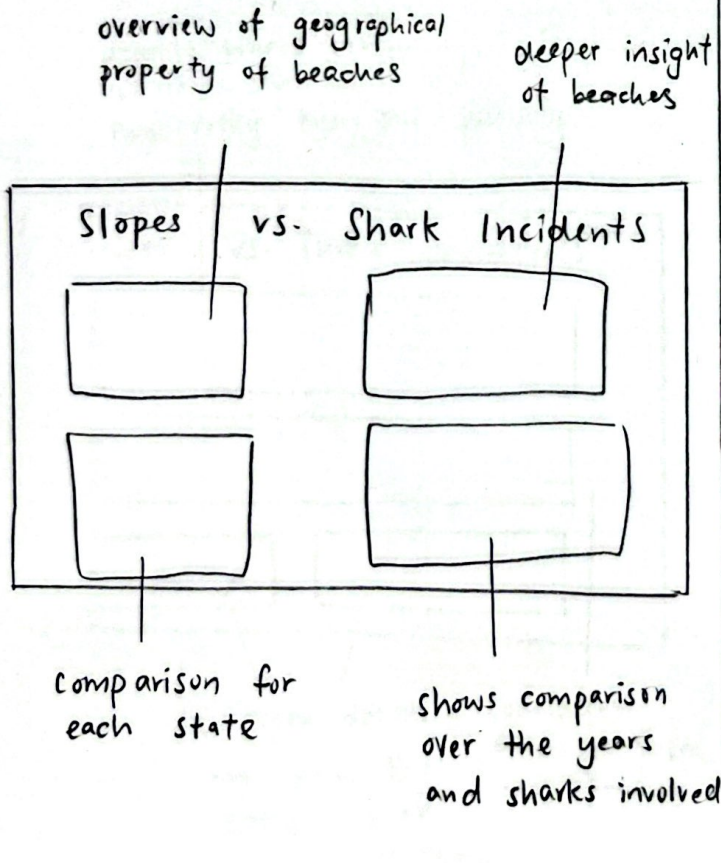
OPERATION



* only shows selected year range

FOCUS

* boxes represent charts in layout

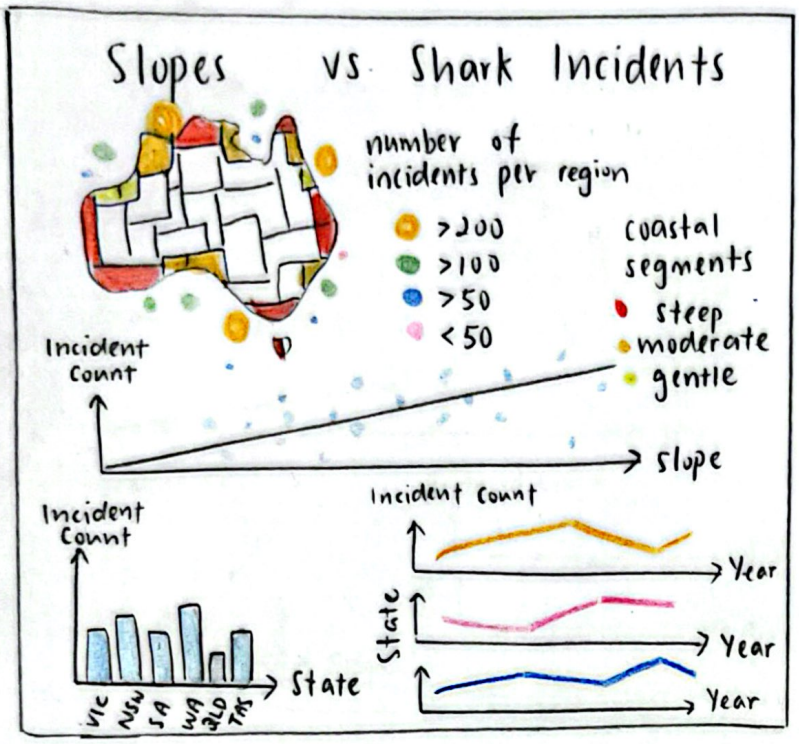


DISCUSSION

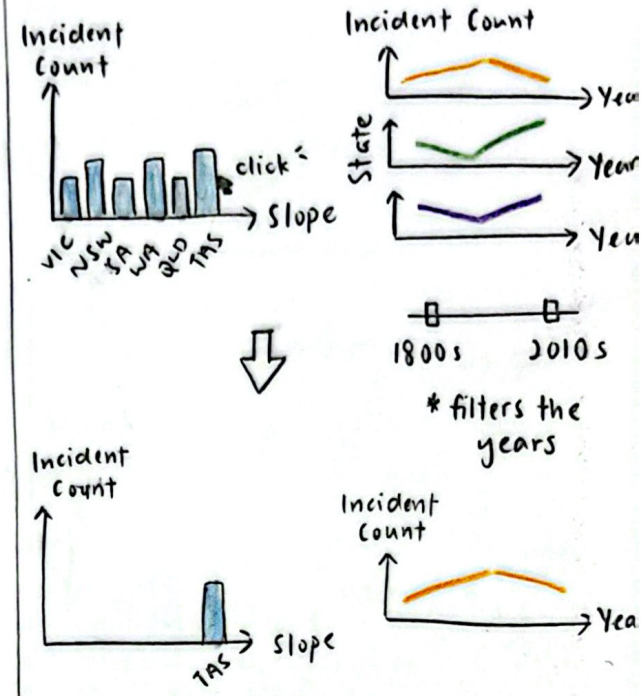
- gives overview & introduction and then go in-depth
- each chart compares the key variables
- comparative storyline
- still a little simple

Author : Andrea Ong
Date : 7/10/2025
Title : Data Visualisation II
5 Design Sheets
Sheet : 3

LAYOUT



OPERATION

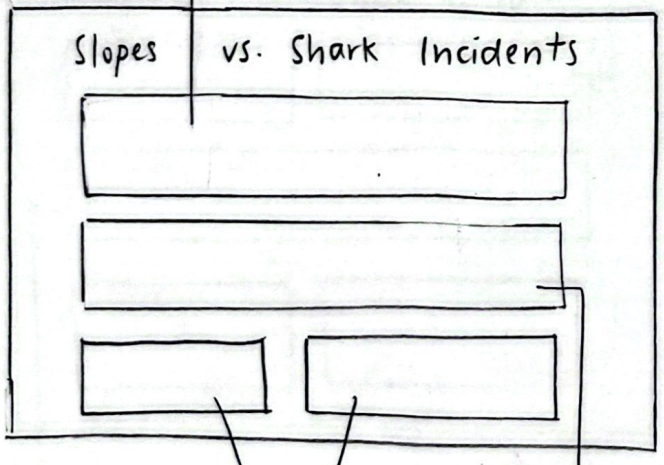


* only shows selected data

FOCUS

* boxes represent the charts from layout

depicts where certain activities dominate and how risky they are spatially



in-depth details that show the relationship of beaches and shark incidents

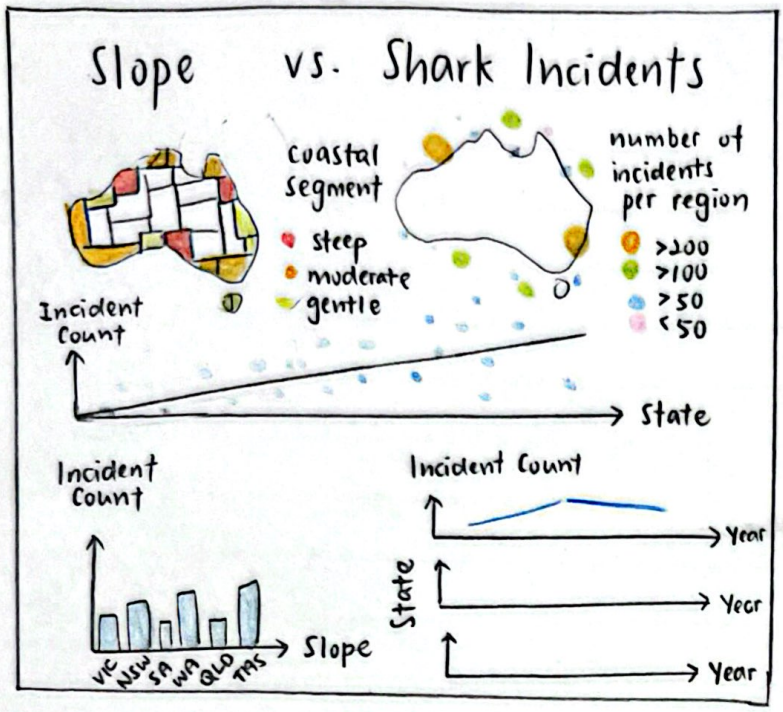
concludes findings from map charts

DISCUSSION

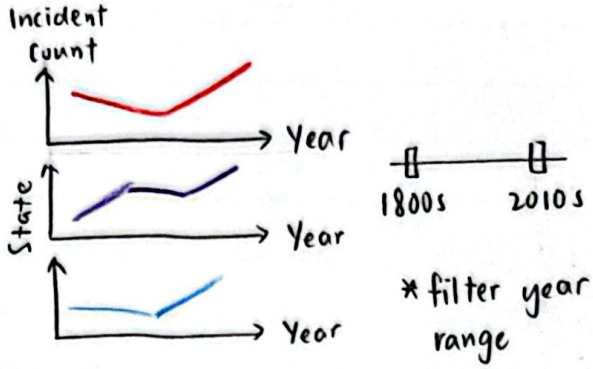
- Will the combined chloropleth and proportional symbol maps be hard to read due to too many colours?
- able to analyse relationship between different key variables

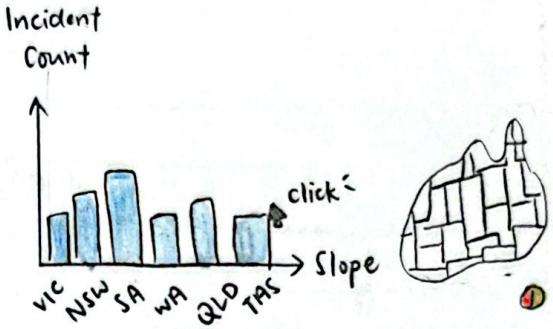
Author: Andrea Ong
Date: 10/10/2025
Title: Data visualisation II
5 Design Sheets
Sheet: 4

LAYOUT



OPERATION

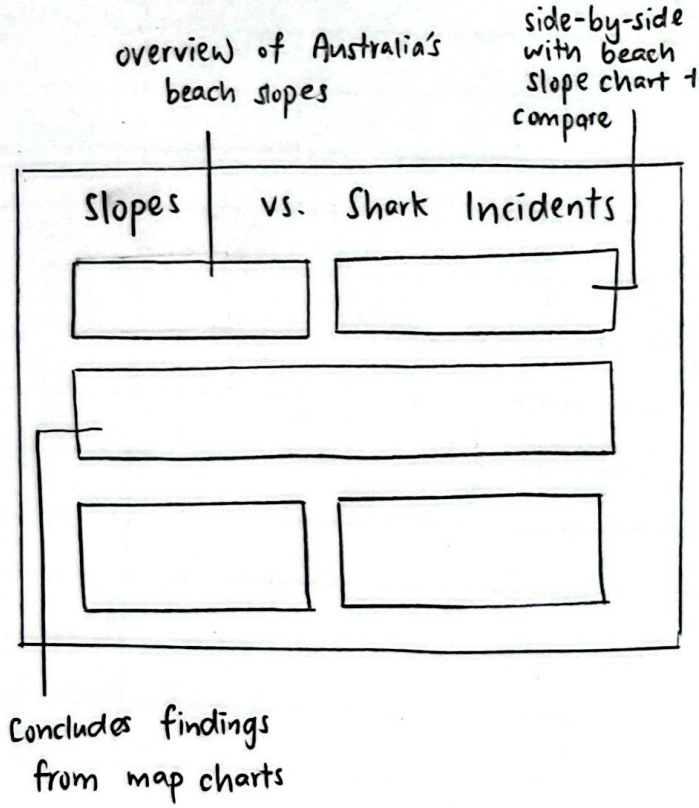




* selecting a state will reflect on the map

FOCUS

* boxes represent the charts in layout



DETAILS

- by separating the two map charts, viewers can understand the geography and see how humans and sharks interact
- bar, line, scatter charts provide quantitative information of what the map charts suggest
- tells the story from environmental baseline → spatial overlap → quantitative validation

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5 Design Sheets
Sheet : 5