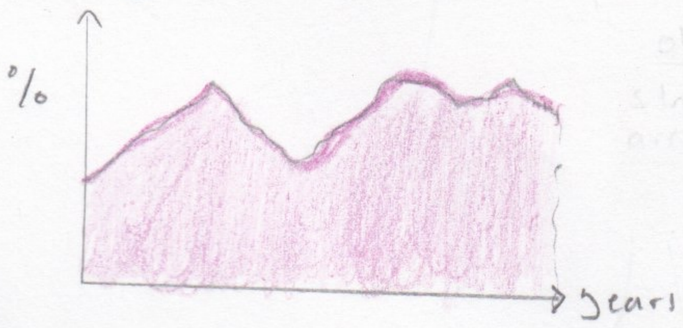
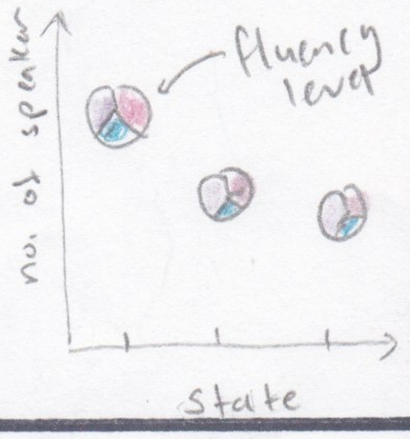
IDEAS

① English speakers

→ % of speakers per area (gov. boundaries or states)

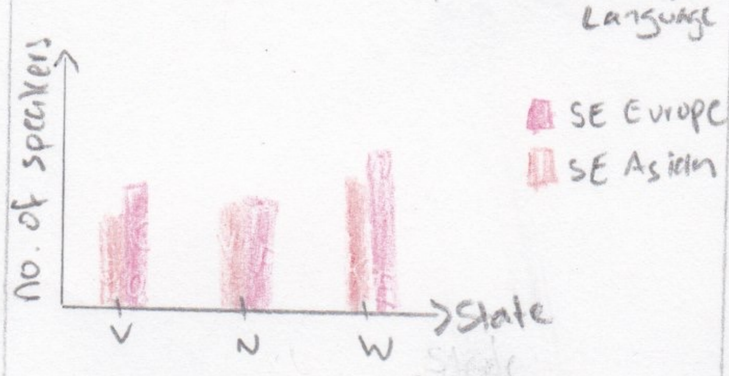
→ proportion of population that speak English over time.

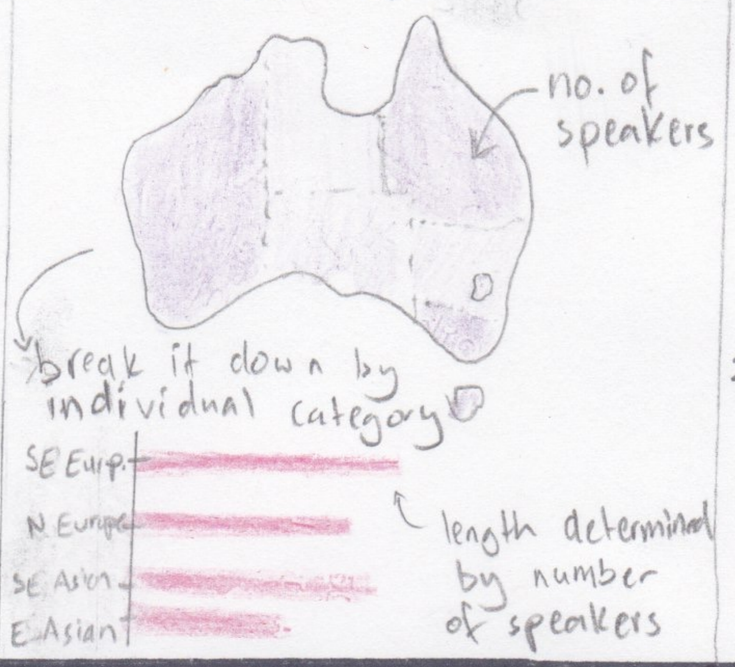




② Language used at home (LANP)

→ broad category language classification



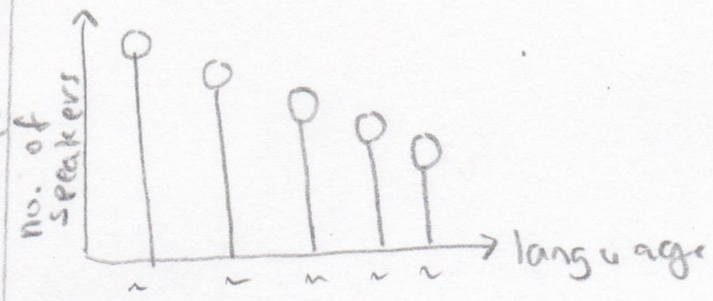


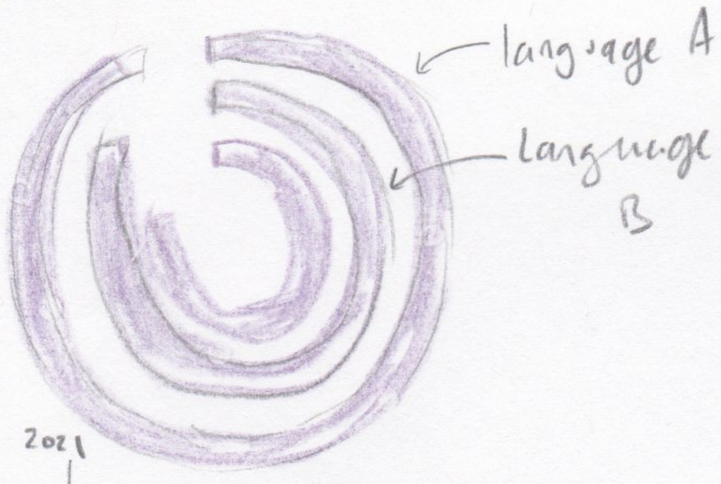
③ Top 10 Languages spoken at home

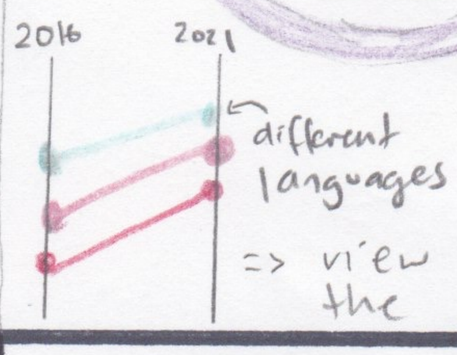
→ Australia view

Most spoken language after English in each state or LGA

Different colours for each language

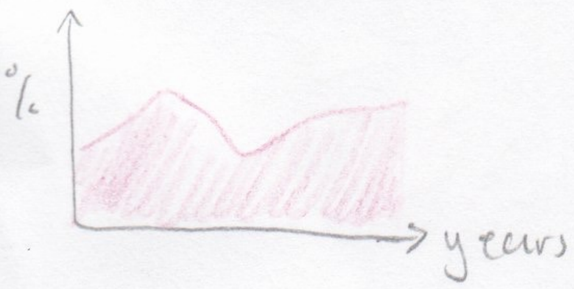




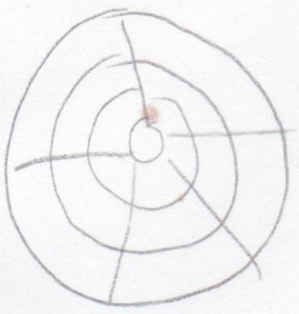


=> view change over the census years

FILTER

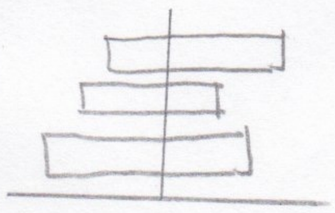


not incredibly interactive, maybe a better form to present this data



as there are around 9 LANP Broad categories, this might be too busy and hard to read.

=> a rectangular heat map is probably better



=> a diverging bar chart would be better than the stacked area chart as can gain a more granular view of English vs non-English speakers

CATEGORISE

number / distribution of English speakers in Australia

↓

Broad category LANP analysis

↓

Top 10 Languages (other than English) distribution across Australia

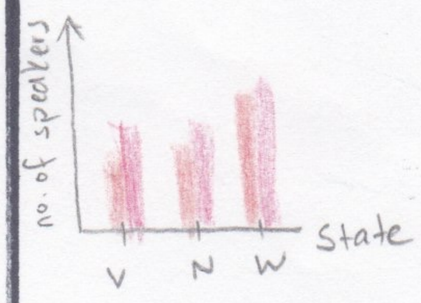
↓

Top 10 languages analysis

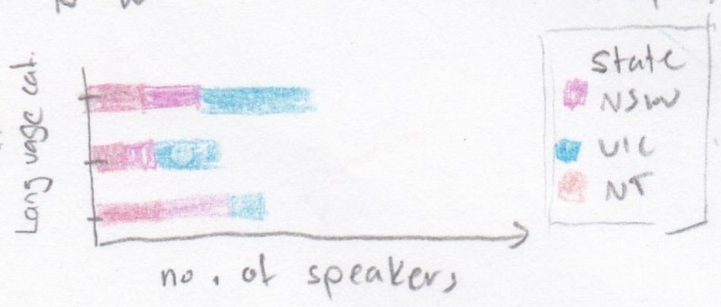
QUESTIONS

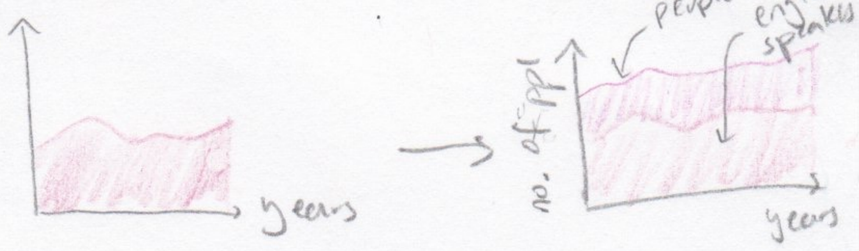
- what is the best way to balance displaying the number of speakers and the distribution across Australia?
- How to display languages comparatively and not just on their own?

COMBINE & REFINE



+





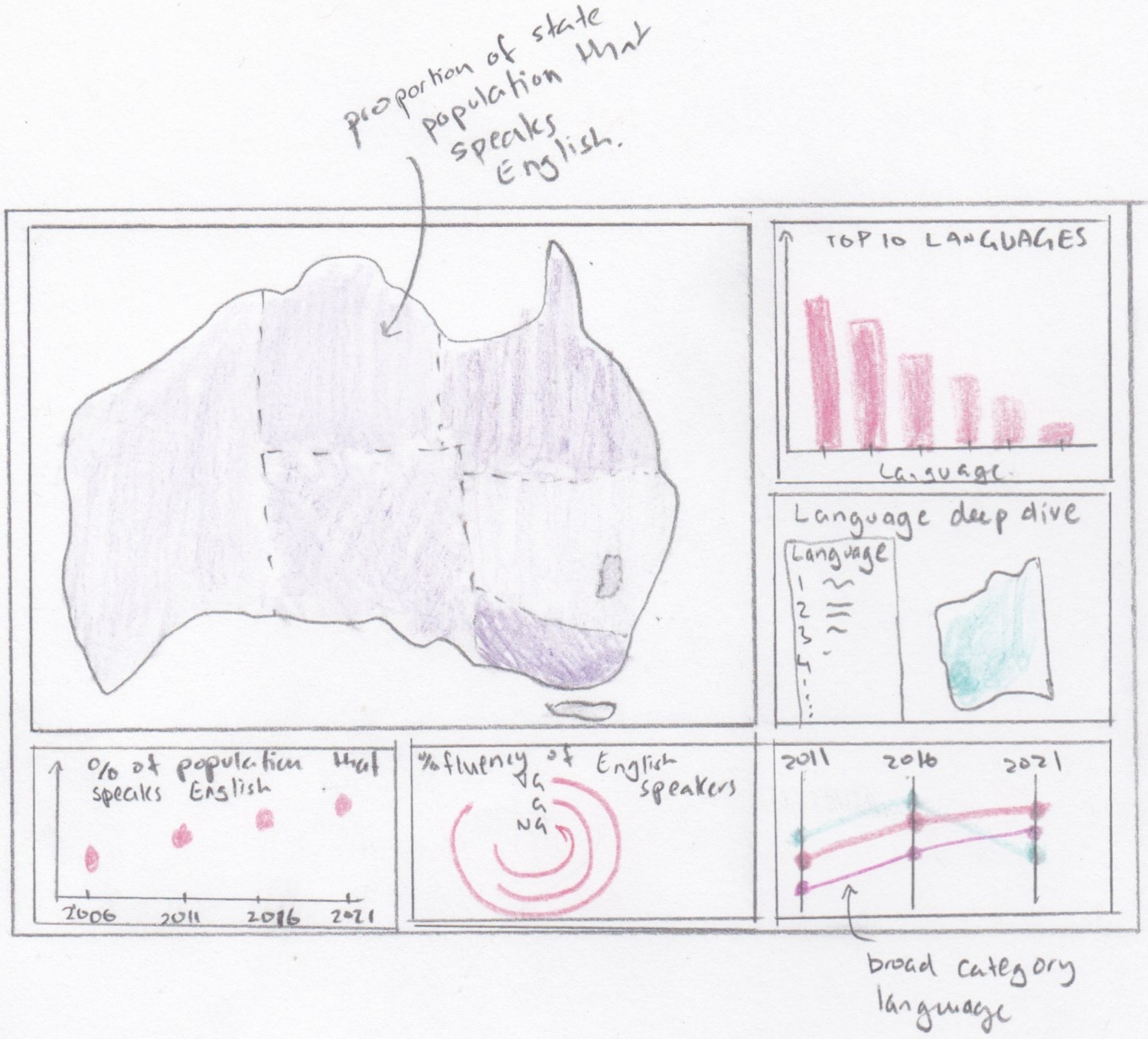
→ change pie chart to be more complex
- order by state

each slice broken into state

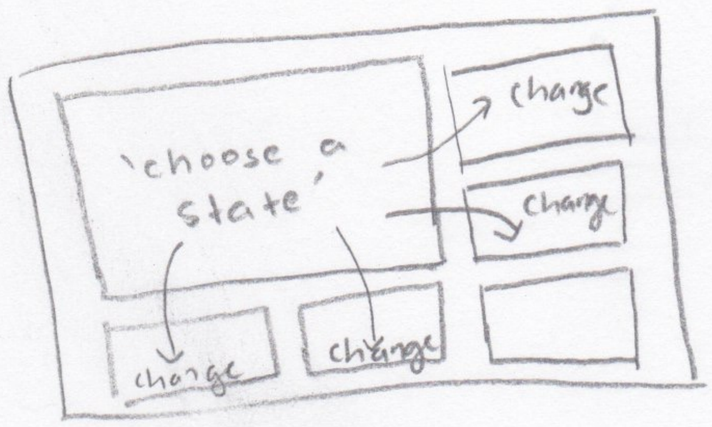
combine heat map and a pie chart.

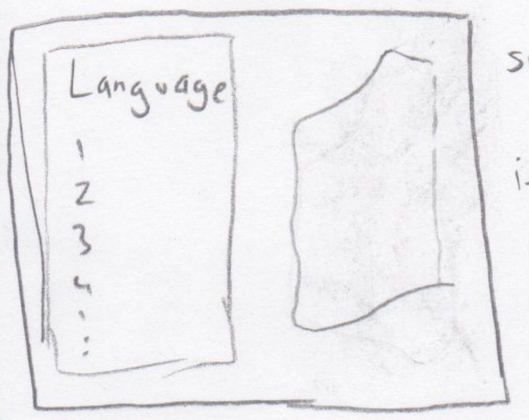
Title: Dashboard view
Author: Mickayla Kee
Date: 30/9/25
Sheet: 2
Task: State-focused visualisation

LAYOUT



OPERATIONS





selected language is the one that shows on a detailed state map → number of speakers by LGA.

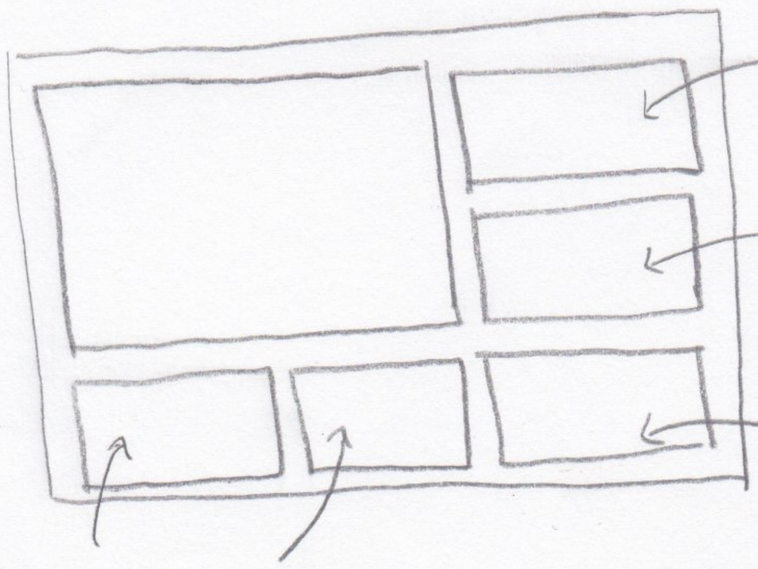
language name:
number of speakers:
proportion of population:

tooltip for column chart

FOCUS

→ all graphs contribute to the state-by-state story

→ most important visualisation would be the map of Australia which changes the rest of the visualisation



how many speakers for the top 10 languages

trends to identify areas where this language is highly spoken

analyse the change in number of speakers between census dates

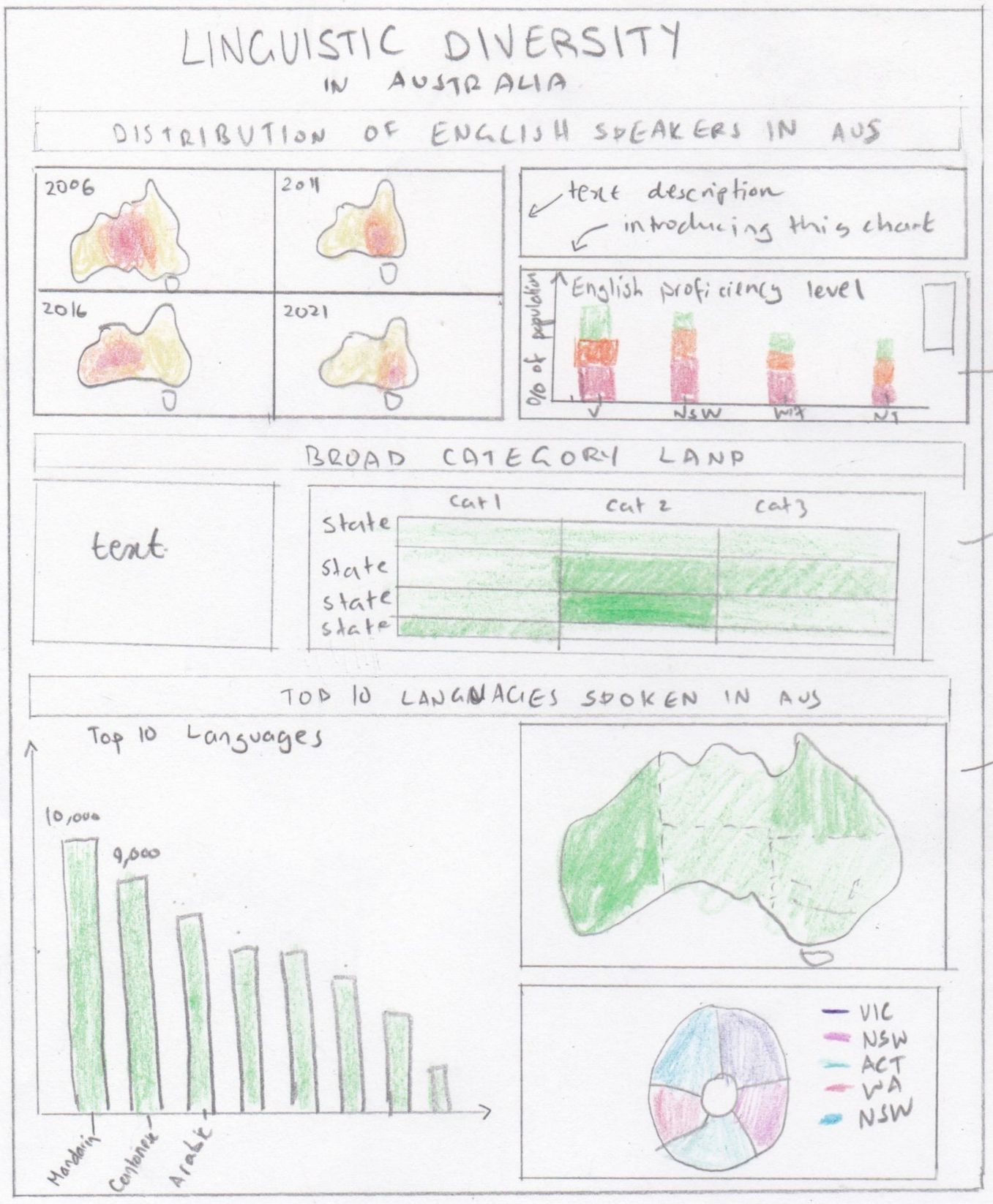
analyse the change in number and fluency of English

DETAILS

- easy to make compare language diversity in a single state
- difficult to compare 2 or more states
- is the analysis not complex enough?
- minimal user interactivity
- is the story strong enough through selected visuals?

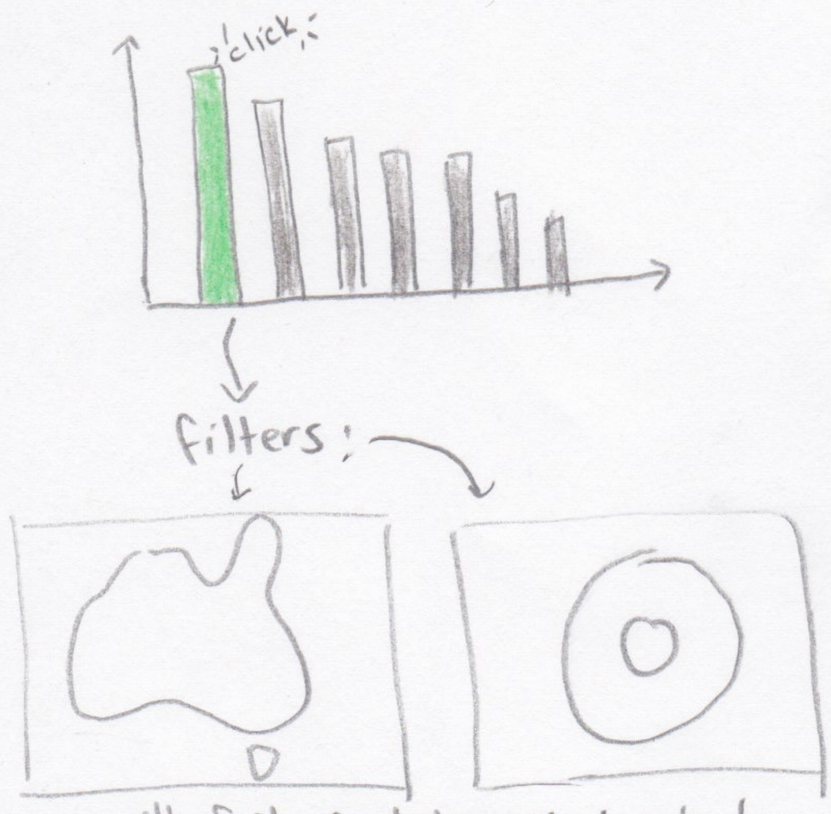
Title: Storylike narrative
Author: Mickayla Kee
Date: 4/10/25
Sheet: 3
Task: Scrollable narrative for user

LAYOUT



tooltips for more detail

select bar in bar chart to highlight

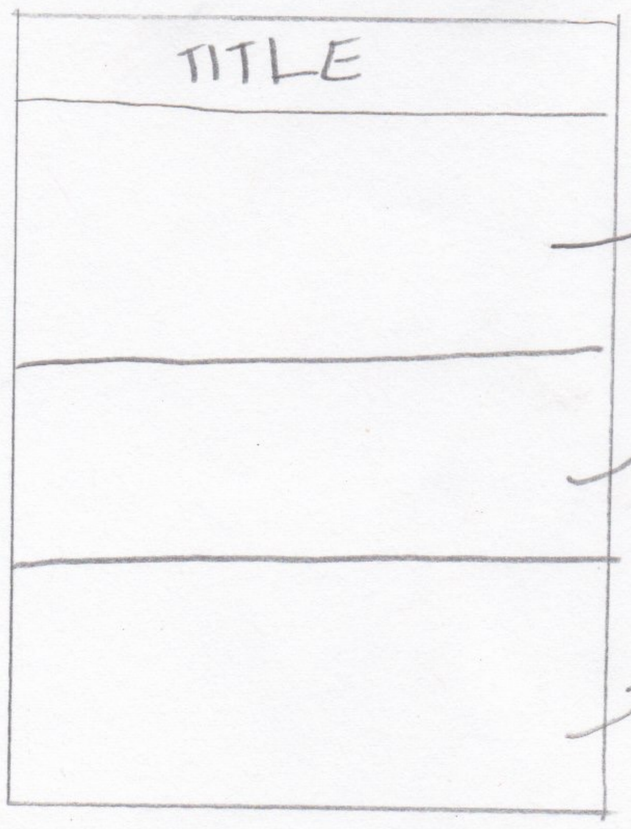


will feature data selected by bar.

OPERATIONS

FOCUS

contains 3 focus areas, each area is centered around a different topic.



distribution of english only speakers and other patterns

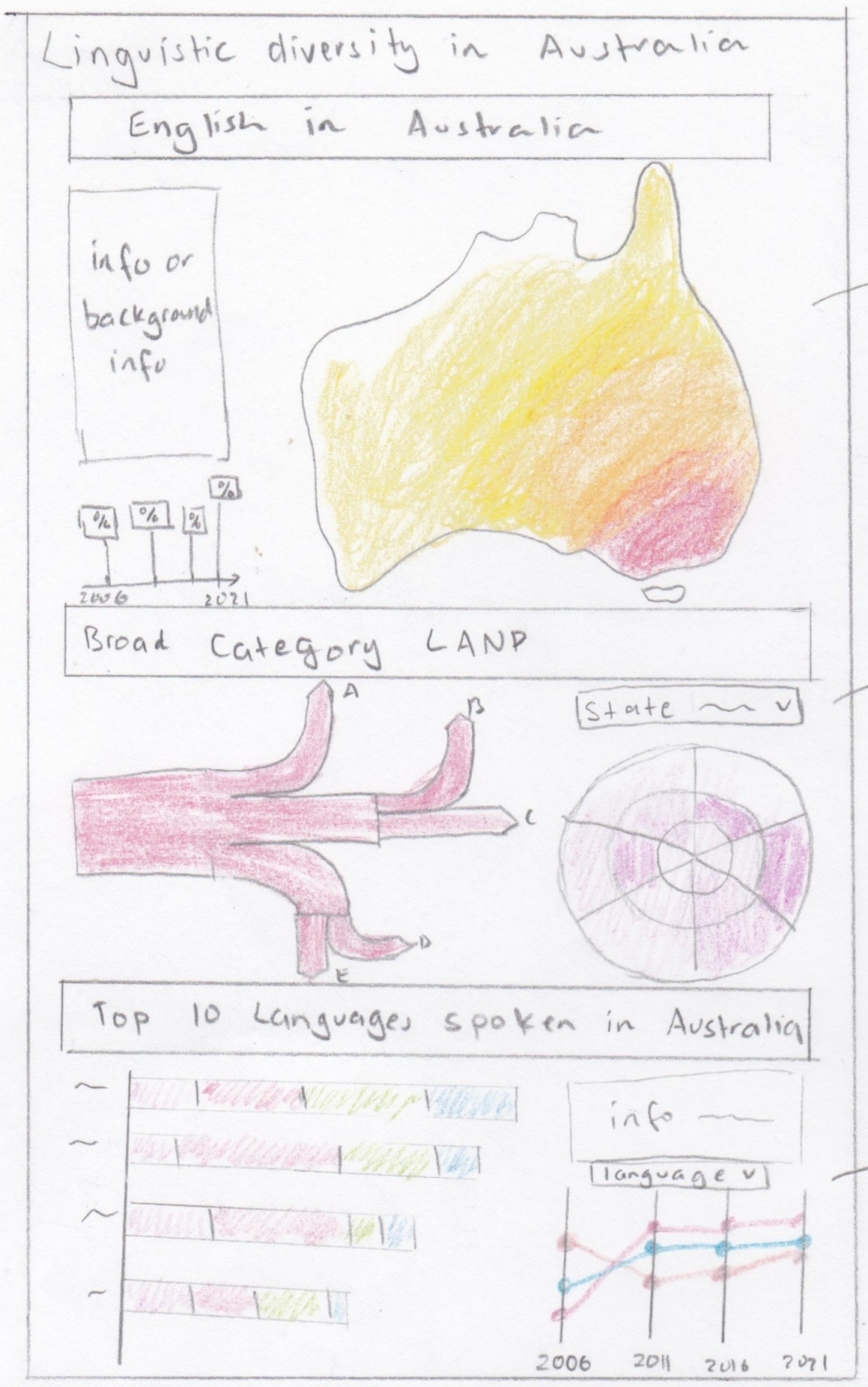
introduction to ABS 'LANP' variable and broad language category

Top 10 non-English languages from (LANP)

DETAILS

- well segmented into different topics but is there enough information to tell the story?
- is there space to put text and interaction explanations?
- are there enough interactions for an end user?
- is there enough information to tell the story? More charts or more text?

LAYOUT



Title: Sectioned poster
Author: Mickayla Kee
Date: 4/10/25
Sheet: 4
Task: Infographic for user

OPERATIONS

zoom feature? to zoom into specific areas or state selector

state selector to change circular heat map (add or remove rings)

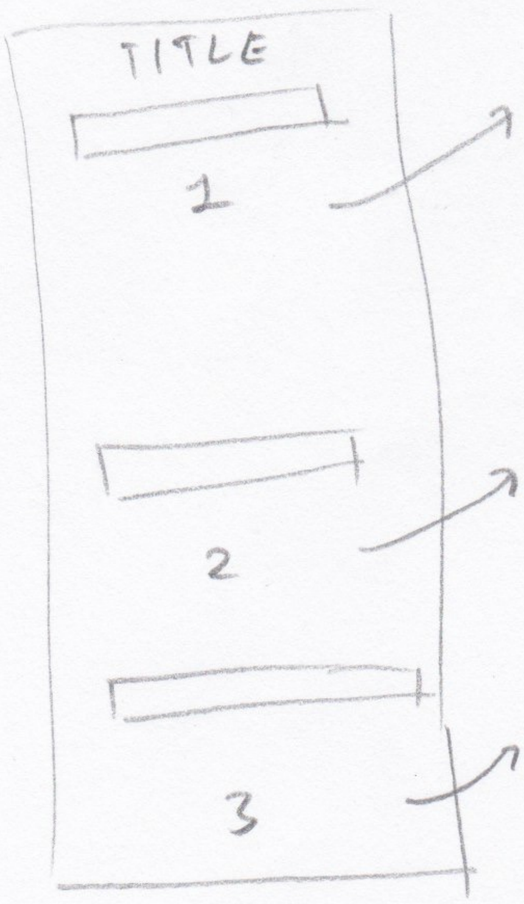
selecting a category on the sankey will also highlight a wedge on the heat map

e.g.

select a language to highlight on slope graph

FOCUS

- 3 sections to explore, each section has heading and corresponding visuals to explain topic.



explore the % of population that speak English across Australia

Broad category LANP analysis

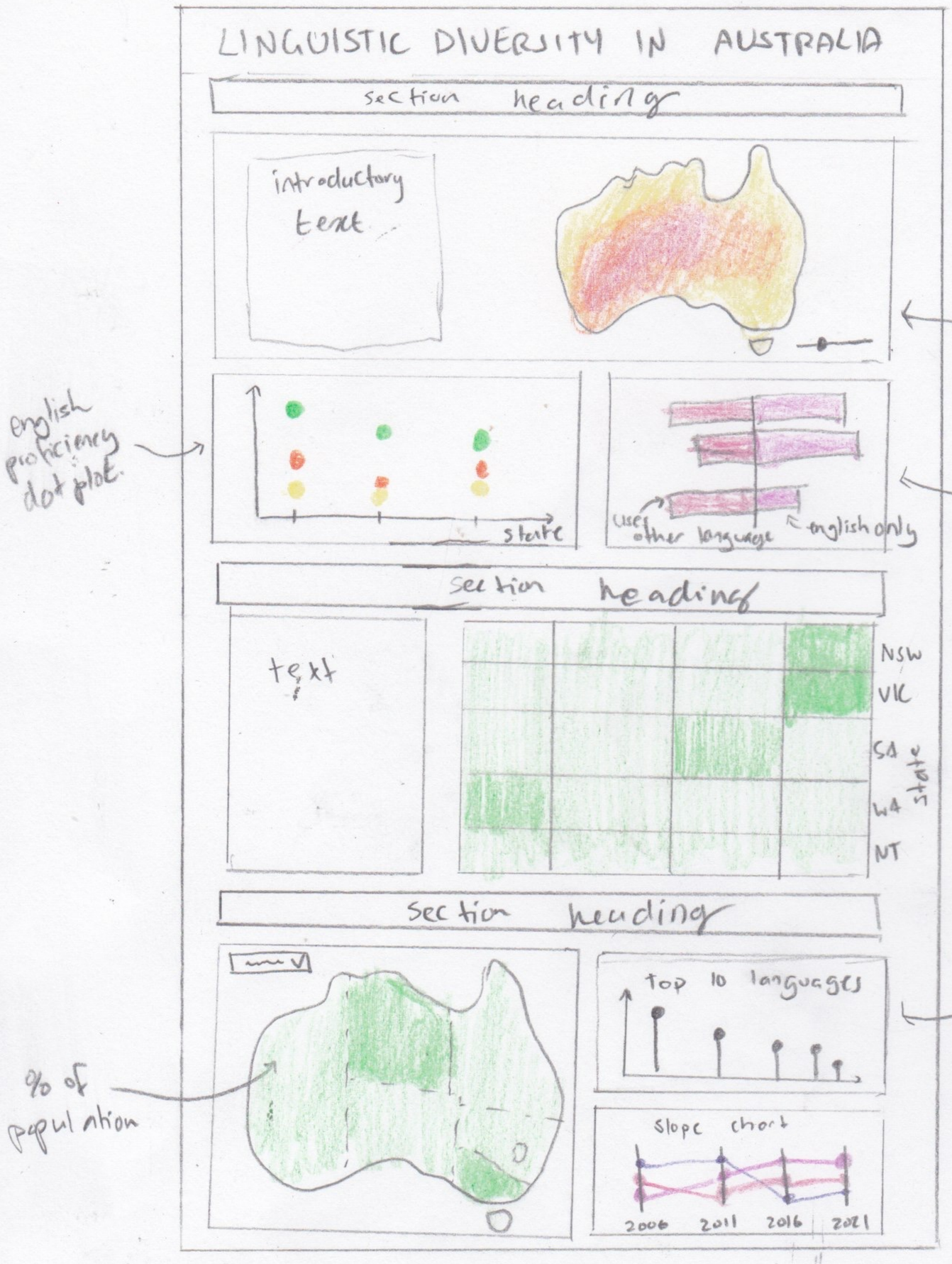
Top 10 language analysis

DETAILS

- is there enough user interactivity?
- sections create easily distinguishable ideas but they don't connect that well
  → storytelling is not as strong
- can't answer more complex questions
- might need to add maps to section 2 and 3 to analyse distribution across Australia.

Title: Final design layout
Author: Mickayla Kee
Date: 5/10/25
Sheet: 5
Task: Final layout and design

LAYOUT



OPERATIONS

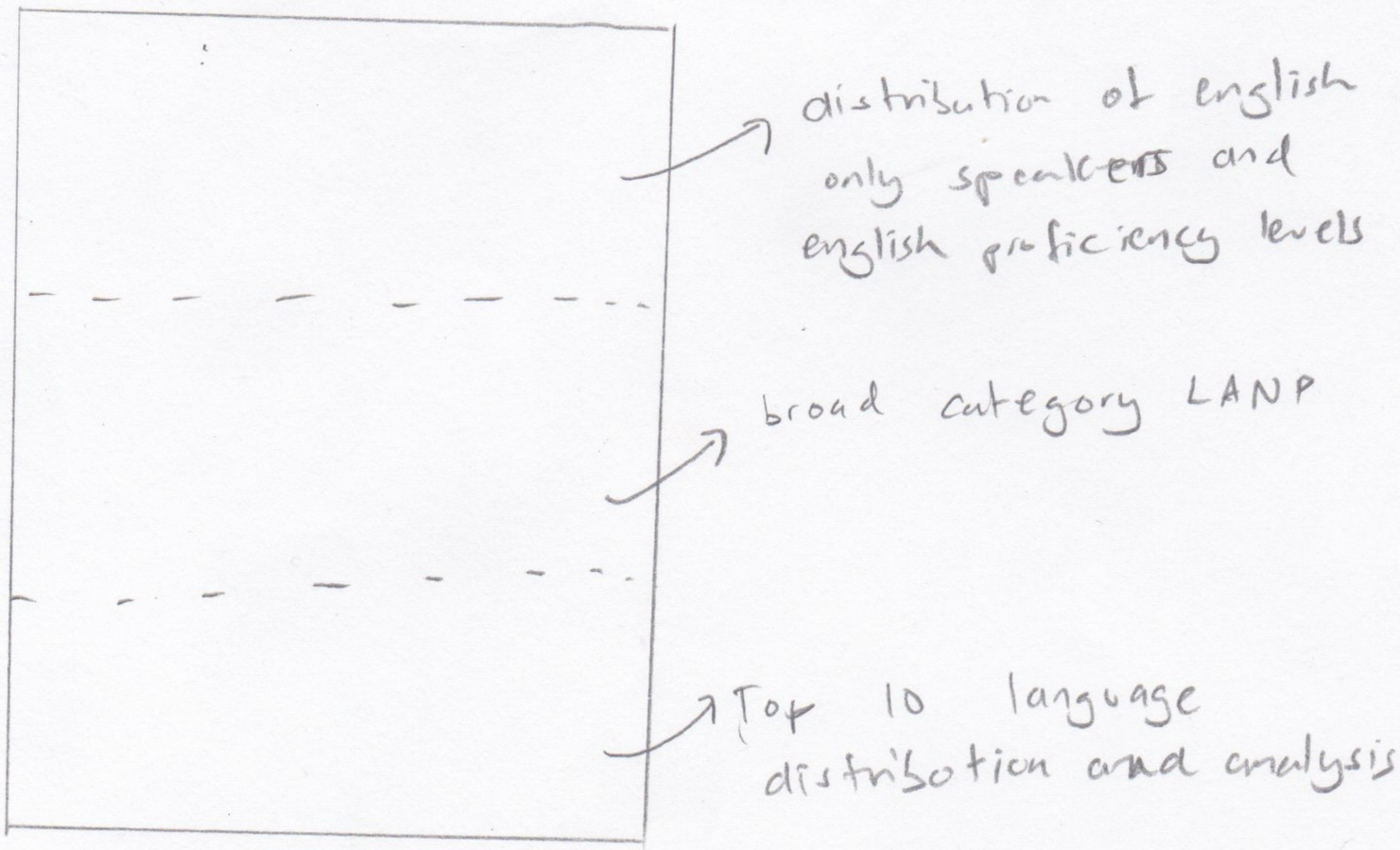
map has a zoom slider to set a closer look at different states

zoom on chloropeth map could highlight dot plot and/or diverging bar

map has a select language to change underlying dataset also highlights the language on lollipop chart and slope chart.

FOCUS

3 main focus areas



DETAILS

Dependencies
- Datasets from abs.gov.au
- Python for data cleaning

- estimated time for visualisation ~10 hours (~1 hour per visualisation and ~1 hour per html section)

Requirements
- visualisation needs to fit horizontally on a desktop screen -> no horizontal scroll
- chart containers need to be flex