

Homework Assessment Week 4

Visual Design: Chartjunk, Colour, Layout and Typography

The week 4 homework requires you to improve two Tableau dashboards by identifying chartjunk as well as using layout, colour and typography design principles. The goal is to create visualisations that require less cognitive load, are easy to read, show information with a clear hierarchy, and use a compact and clearly structured layout. The assessment is worth 2% of your final grade; 1% for each dashboard task.

This is an individual assessment. Discussing this assessable exercise or posting (intermediate) results on any forum is not allowed. Any kind of academic misconduct will be penalised.

Task 1: Chartjunk (1%)

Open the Tableau file **Homework Week 4 Task 1.twbx** from Moodle and improve **Dashboard 1**. The improvement should at least cover the following aspects.

- Identify elements of chartjunk in this graph.
- Improve this dashboard to improve the readability of this visualisation:
 - remove chartjunk
 - remove unnecessary elements (for example, can you remove some of the legends? Or can you replace some of the legends with annotations on the chart?)
 - increase the data-ink ratio,
 - use consistent colours, prefer grey for less important marks, and use colour to highlight important elements.
- Use typography consistently: Text elements with the same relevance should use the same font size and type weight (for example, labels on axes). More important text elements can be larger; less important elements can be grey.

Task 2: Colour, Layout and Typography (1%)

Open the Tableau file **Homework Week 4 Task 2.twbx** and improve **Dashboard 1**. The improvement should at least cover the following aspects.

- Layout: arrange the text, map, diagram, and legend to create a good layout. Choose a compact size for your visualisation and adjust the size of all elements. Use sight lines, white space to align and group elements, and structure the layout.
- Typography: apply typographic principles to create a clear hierarchy of text elements. Improve the typeface, weights, font sizes, etc. of the title, subtitle, text, diagram, as well as the tooltips for the map and the diagram.
- Diagram: add two annotations to highlight interesting facts in the line chart. Annotate or graphically change the chart to indicate that data for 2010 is estimated. Adjust colours and replace the diagram legend with colour-coded titles.
- Colour: Choose pleasing colours for the map and all other elements, including the background of the visualisation. Use colour coding in legends and titles, where appropriate.
- Tooltip: create and design an aesthetically pleasing tooltip that shows information with a hierarchical structure and useful alignment. Replace the abbreviations, which stand for *County Name*, *Average Population Per SQM*, *Median Age*, and *Total Population*. You should edit the map sheet for this task.

Apply the principles discussed in Week 4 for choosing colour, visual hierarchy with figure-ground, layout with sight lines/visual balance/symmetry, and typography.

Report

The report must be submitted in PDF format through the submission link on the Week 4 page. Do not submit your Tableau file. The page limit of the report is three pages (including screenshots). A penalty will be given if over the page limit. Write a report that contains the following information:

1. Your name, Monash student ID, studio, and tutor name.
2. Task 1: Chartjunk
 - a. A brief description of the identified chartjunk.
 - b. A screenshot of the final chart.
3. Task 2: Colour, Layout and Typography
 - a. A brief description of improved aspects of the visualisation.
 - b. Screenshots of the final dashboard, tooltips for the map and the diagram.