Accessibility checklist for Tableau reports

Tableau is an interactive visualisation tool, and has a number of features that will make your views, dashboards and data more accessible to a range of people. Keyboard navigation and screen readers work on a number of Tableau features, including tabs, titles, single and multiple filters, category legends, captions, and the view data window.

Here is a list of things you should consider when using Tableau to avoid causing problems for people with disabilities and improve the accessibility of your Tableau reports for everyone.

Please note, even if you follow all the recommendations below, Tableau will not be fully accessible to everyone.

Simplify complex information to show key points – this makes it easier for others to read and understand. For example, the chart below shows so many lines that it is hard to identify what the chart specifically shows. The lines have no other markers as they are only distinguishable by colour, but the same colour is used multiple times on other lines which causes confusion. Some simplification of the chart, addition of filters and the use of shape markers to help distinguish each line would help.

Simple wording will help avoid confusion or overwhelming the user.

People with visual impairments may struggle to read a chart with lots of markers (e.g. over 1000). When possible, aggregate large data to highlight key points/trends. For example, the charts below show the same information in different ways - which do you think is the clearest to understand?
If your data visualisation uses a dimension from a hierarchy of information, e.g. sub categories within categories, and you only really want to add the sub category to the visualisation, make a copy of the dimension and rename to something meaningful and use that in the visualisation.

This will avoid people accessing the hierarchy and potentially increasing the number of markers on the chart with other sub category options.
Ask yourself, "If this was displayed in greyscale, would the information still be communicated?".

Use other markers like shape or size to help distinguish individual marks.

Use labels or tooltips to identify marks/lines/bars in addition to colour.

Use different shades of the same colour or different colours to help distinguish individual marks.

For discrete data the color blind palette provides a good level of contrast making it clearer to those with visual impairments.

1. From the Marks Card, click **Color** and select **Edit Colors**...
2. From Select Color Palette: choose Color Blind.

3. Click Assign Palette.
4. Click OK.

For continuous data, Tableau suggests the use of the BLUE or the ORANGE-BLUE diverging palette, with stepped color options set to 5.

1. From the Marks Card, click Color and select Edit Colors…
2. From Palette: click Blue, or Orange-Blue Diverging.
3. Tick Stepped Color and select 5.

4. Click OK.

If you want the user to be able to distinguish the information individually do not use more than 10 colours in a view as after the 10th, the colour will start repeating itself. To avoid this, make use of the filters to help control it. There are other options to help distinguish larger data ranges such as patterns, shades, etc.

Sliders are not accessible. Alternatively, try to use the Single Value (list), Single value (dropdown), Multiple Values (list), Multiple Values (dropdown).

1. From Filter, click the filter options arrow in the top right.
2. Select filter option required (e.g. Single Value (List)).

Horizontally positioned filters are more likely to encounter layout issues when they adjust to different screen sizes, so it is good practice to always have vertically aligned filters.

Including short hyperlinks in your reports such as www.lancaster.ac.uk/iss does not cause an accessibility issue. However, longer hyperlinks containing strings of numbers or reference codes are difficult to understand and remember, especially when using assistive technology such as a screen reader. Embedding hyperlinks into the text makes the report flow better and provides clear information about where the hyperlink leads to.

Links such as "click here" do not provide any information about their destination when taken out of the document content. Use descriptive hyperlink text, such as "More information can be found on the Information Systems Services website" to convey clear and accurate information about the destination.

Add/Edit Title on Tabs:
Right click tab, and click Rename.

Add/Edit Title on Worksheets:
Double click on existing worksheet title. Edit as required – remember to name it something meaningful. The default size and style of text is accessible.

Add/Edit Title on Filter or Category Legends:
Click the arrow in top right of filter to view filter options, and select Edit Title...

1. Click on the item you wish to add a caption to (e.g. chart).
2. From Worksheet menu, click Show Caption.
3. Edit the caption so it is clear and meaningful (it appears below the chart by default as a text box).

From the Marks, click Label and tick show mark labels.

Right click on field name, select Rename.

If you need to explain a view/dashboard in more detail, add additional text zone with descriptions to give more context to the data.

1. From the Dashboard, in Objects, drag Text to position required on dashboard.
2. Add in text description required.
3. Click OK.

The view data window shows the data that will be read by a screen reader for a particular view once your view is published. It is good practice to enable 'Download Summary Data' when publishing your view. However, you will need to check the information you are sharing is suitable for sharing e.g. abide by GDPR if contains personal information. When publishing, check access permissions for the people who are allowed access to the Tableau.

Giving access to the data summary will enable the data to be download into an accessible application that can be used by screen readers to help the user further understand the data.

- Right click and select View Data – this is the data that would be available if summary data was downloaded.

If you are happy to share the summary data with the audience, you will need to edit permissions when publishing Tableau and check each group/persons permissions allowed to download summary data. Select options carefully if you use personal data in your data source or Tableaus. E.g. you might not want people to be able to download the full data, but only see the summary data. If you have used filters, you will need to ensure filter is allowed in the permissions.
Further information of the accessibility of Tableau is available on the Tableau website. In particular:

- Build data views for accessibility (Tableau website)
- Best practices for designing accessible views (Tableau website)
- Video example of making a dashboard accessible (Tableau YouTube video)