Dashboard

IS281 - Tools for Empowering End Users

Outline

- What is Dashboard?

- Preparation for a Dashboard Project

- Best Practices

- Design Principles

- Examples

What is Dashboard?

▸ A dashboard is a visual interface that provides at-a-glance views into key measures relevant to a particular objective or business process. Dashboards have **three main** attributes:

▸ Dashboards are typically **graphical in nature**, providing visualisations that help focus attention on key trends, comparisons, and exceptions.

▸ Dashboards often display data that is **relevant only to the goal** of the dashboard.

▸ Because dashboards are designed with a specific purpose or goal, they inherently contain **predefined conclusions** that relieve end users from performing their own analysis.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Preparing for a Dashboard Project

▸ Establishing the **audience and purpose** for the dashboard.

▸ Describing the **measures** for the dashboard.

▸ Cataloging the required **data sources**.

▸ Defining the **dimensions and filters** for the dashboard.

▸ Determining the need for **drill-down features**.

▸ Establishing the **refresh schedule**.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Dashboard - Data Sources

▸ Do you have **access** to the necessary data sources?

▸ How often are those data sources **refreshed**?

▸ **Who** owns and maintains those data sources?

▸ What are the **processes** to get the data from those resources?

▸ Does the data even **exist**?

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Implementing Dashboard Modelling Best Practices

‣ **Separating** data, analysis, and presentation.

‣ Starting with appropriately **structured data.**

‣ **Avoiding** turning your data model into a database.

‣ **Documenting** and organising your data model.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Avoiding Turning Your Data Model into a Database

▸ **What's wrong** with utilising as much data as possible?

▸ Aggregating data within Excel increases **the number of formulas**.

▸ **Your data model** will be distributed with your dashboard.

▸ Large data sets can cause **difficulty in scalability**.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Documenting and Organising Your Data Model

‣ Wanting to keep your data model limited to **one worksheet tab is natural**.

‣ Most users would think that **keeping track of one tab is much simpler** than using different tabs.

‣ Using one tab typically places **limits on your analysis**.

‣ Too much on one tab makes for a **confusing data model**.

‣ Using one tab **limits the amount of documentation** that you can include.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Dashboard Design Principles

‣ Keep it simple.

‣ Don't turn your dashboard into a data repository.

‣ Avoid the fancy formatting.

‣ Limit each dashboard to one printable page.

‣ Format numbers effectively.

‣ Use titles and labels effectively.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Avoid the Fancy Formatting

‣ **Avoid** using colours or background fills to partition your dashboards.

‣ **De-emphasise** borders, backgrounds, and other elements that define dashboard areas.

‣ **Avoid applying fancy effects** such as gradients, pattern fills, shadows, glows, soft edges, and other formatting.

‣ **Don't try** to enhance your dashboards with clip art or pictures.

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Format Numbers Effectively

‣ **Always use commas** to make numbers easier to read.

‣ Use decimal places **only if** that level of precision is required.

‣ Use the dollar symbol **only when** you need to clarify that you're referring to monetary values.

‣ **Format** large numbers to the thousands or millions place.

11

Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

Use Titles and Labels Effectively

▸ Always include a **timestamp** on your reporting mechanisms.

▸ Always include **some text** indicating when the data for the measures was retrieved.

▸ Use **descriptive titles** for each component on your dashboard.

▸ Although it may seem counterintuitive, it's generally good practice to de- emphasise labels by **formatting them to hues** lighter than the ones used for your data.
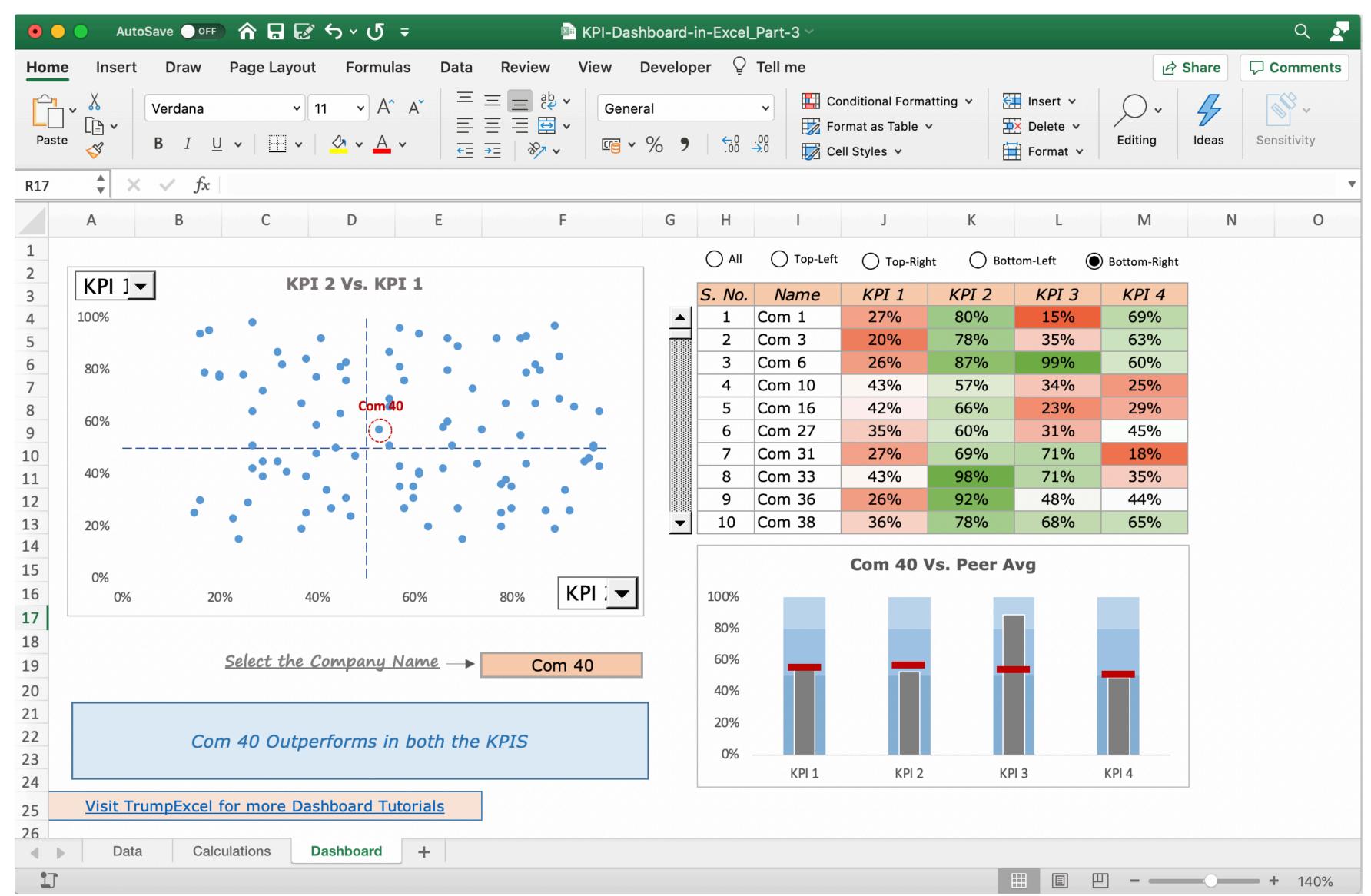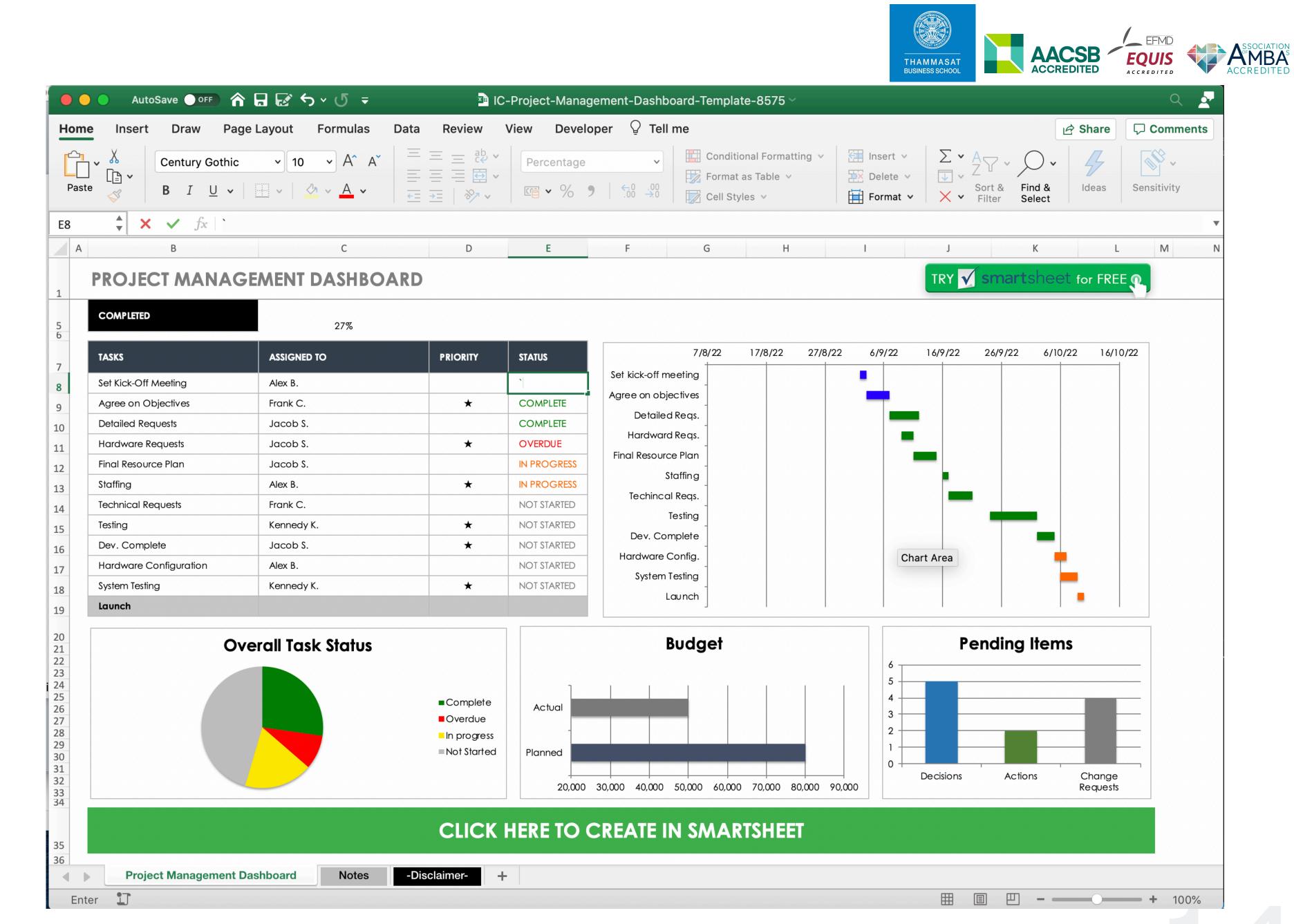
Alexander, M., Kusleika, R. and Walkenbach, J. (2019), Excel 2019 Bible, John Wiley & Sons, Indianapolis, IN.

12

Example

Creating An Excel Dashboard (Explained with Examples & Templates)
Available at https://trumpexcel.com/creating-excel-dashboard/

Example

How to Create a Dashboard in Excel
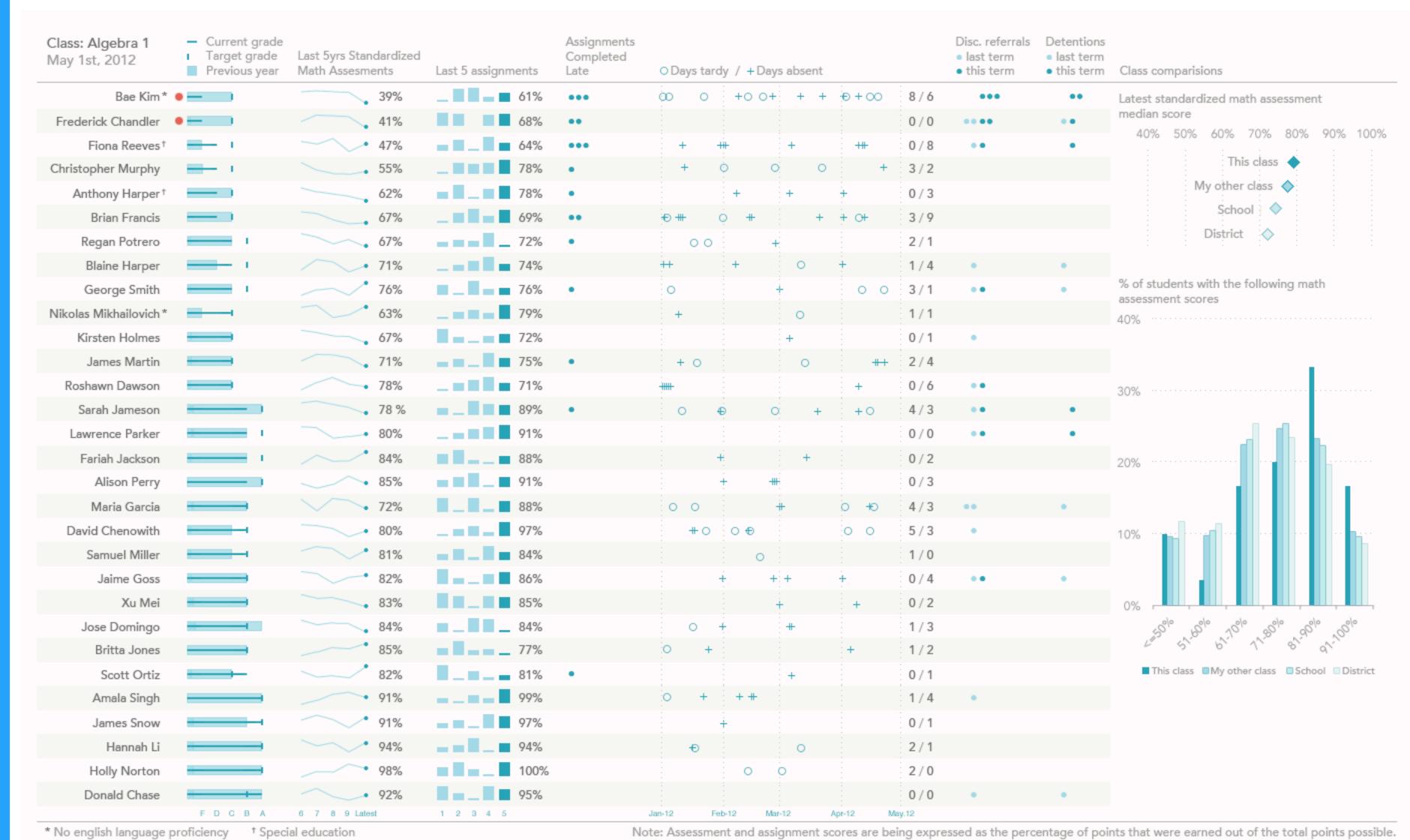Available at https://www.smartsheet.com/how-create-dashboard-excel

Example

2012 Perceptual Edge Dashboard Design Competition: We Have a Winner!
Available at http://www.perceptualedge.com/blog/?p=1374