Lab 5: Evolution of a ggplot

In this lab, we'll practice recreating some early versions of a nice looking plot that describes how student-to-teacher ratios in primary education vary across the world. **The process of creating a detailed, visually appealing final plot is iterative and additive**, as we will see here.

You should be *following a similar process as you work to create your submission for the Mini Project #1* (i.e., swapping out and layering geoms, adjusting axes to include relevant comparison points, and adding some annotations).

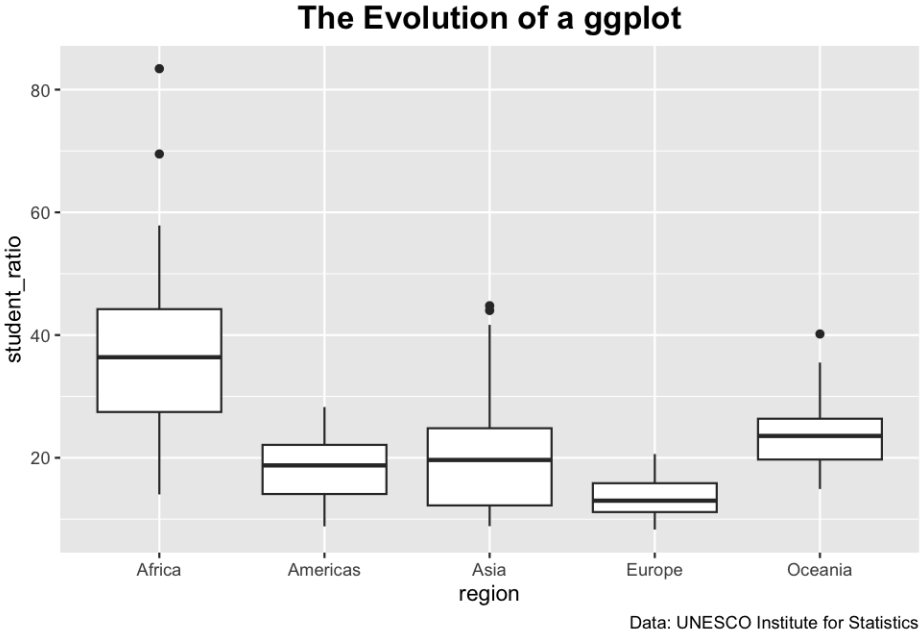
The data comes from the #TidyTuesday project and was shared on May 7, 2019. It contains the UNESCO Institute of Statistics' country-level data on the number of teachers and teacher-to-student ratios in primary and secondary education courses Our goal will be to **describe how the variation in student-to-teacher ratios in primary schools across continents (and we want to show variability within each continent).**

I've included some lines below to read in the data. Your job is to recreate the plots in the *.html* file (see the Files tab of the bottom right window).

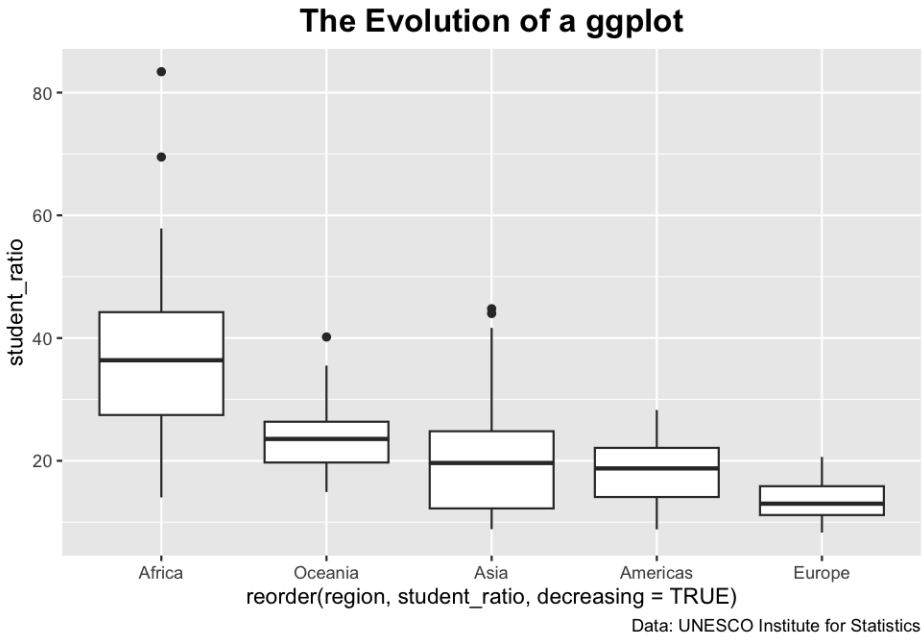
1 Data wrangling

The chunk in this section creates the dataset you'll use in all your plots. *Describe in words what this code chunk does.*

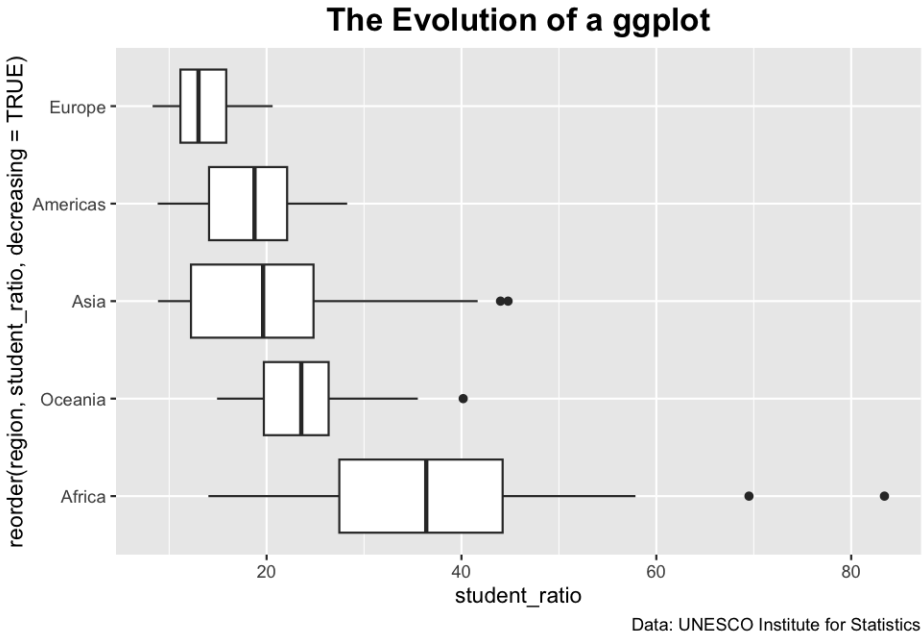
2 Basic boxplot



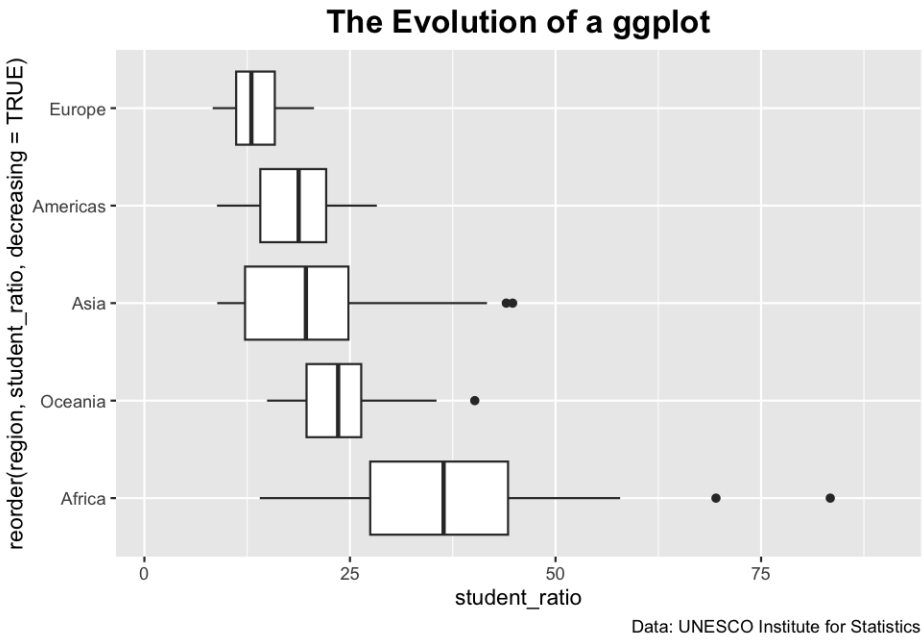
2.1 A more sensible ordering



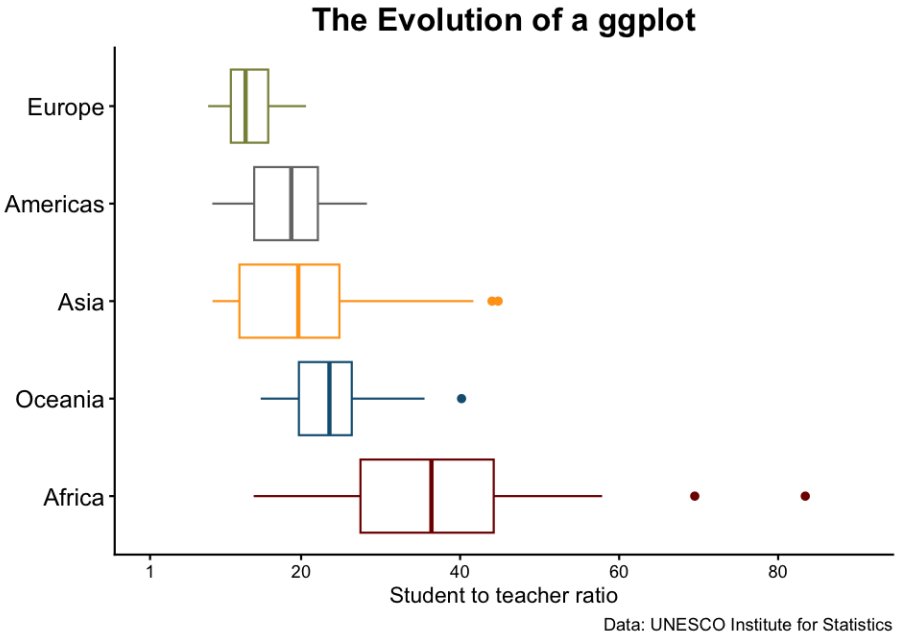
2.2 Flipped axes



2.3 A relevant minimum

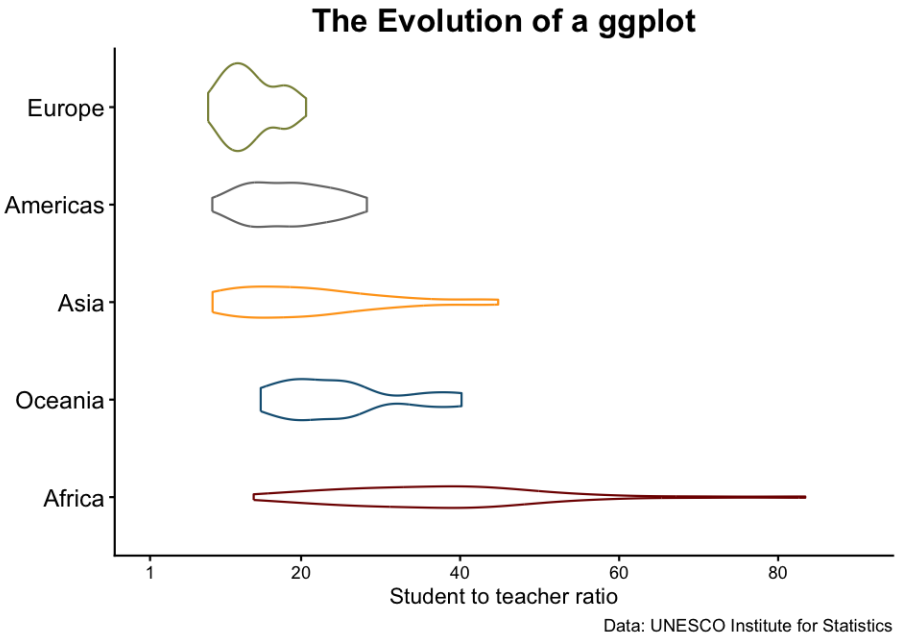


2.4 Color! Theme! Better indication of the minimum!

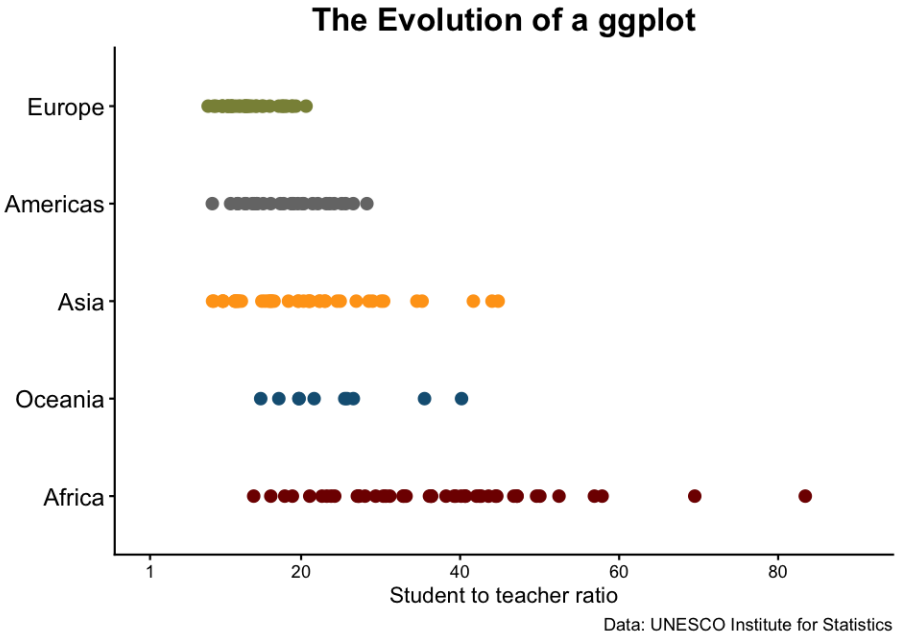


3 Beyond the boxplot

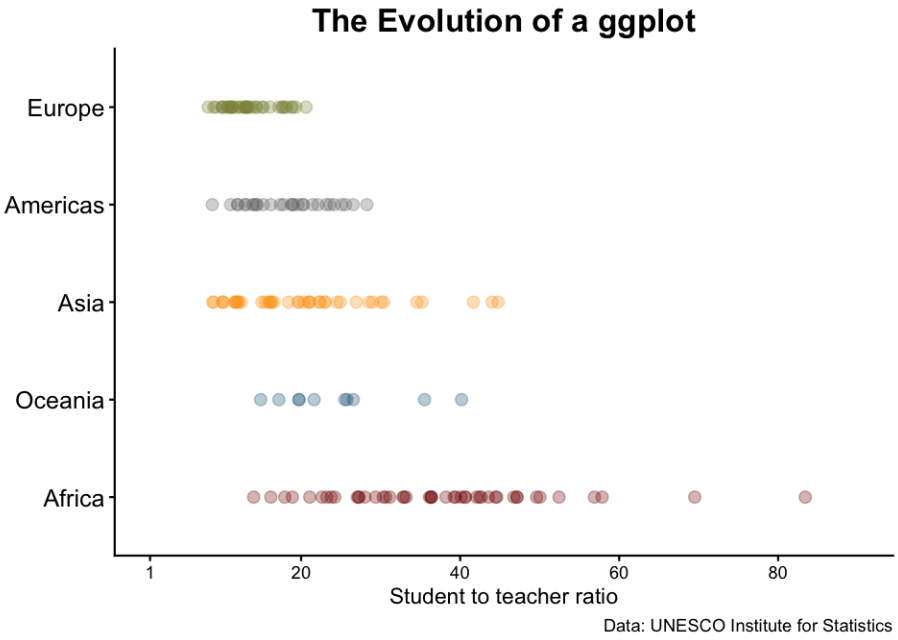
3.1 Distribution shapes



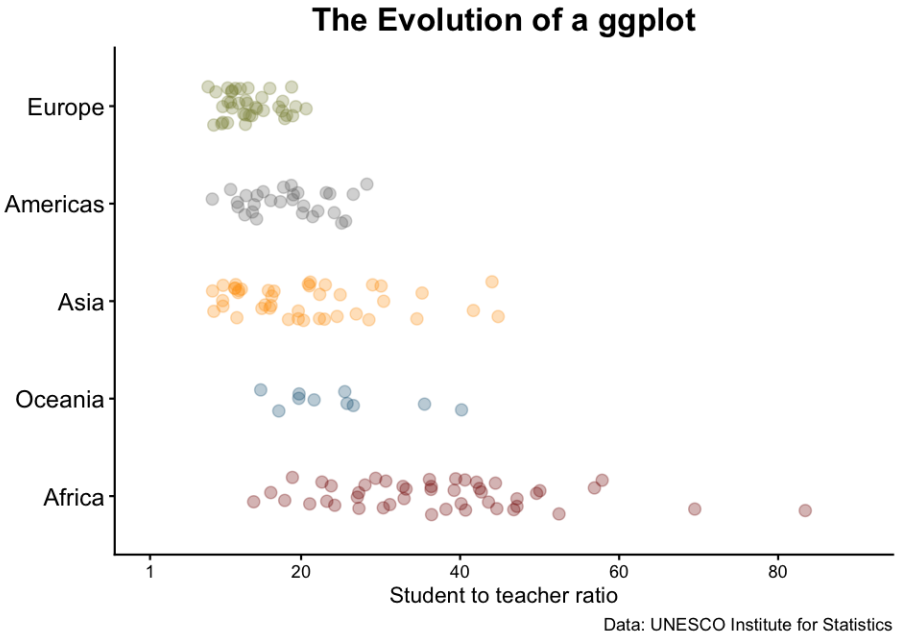
3.2 Countries



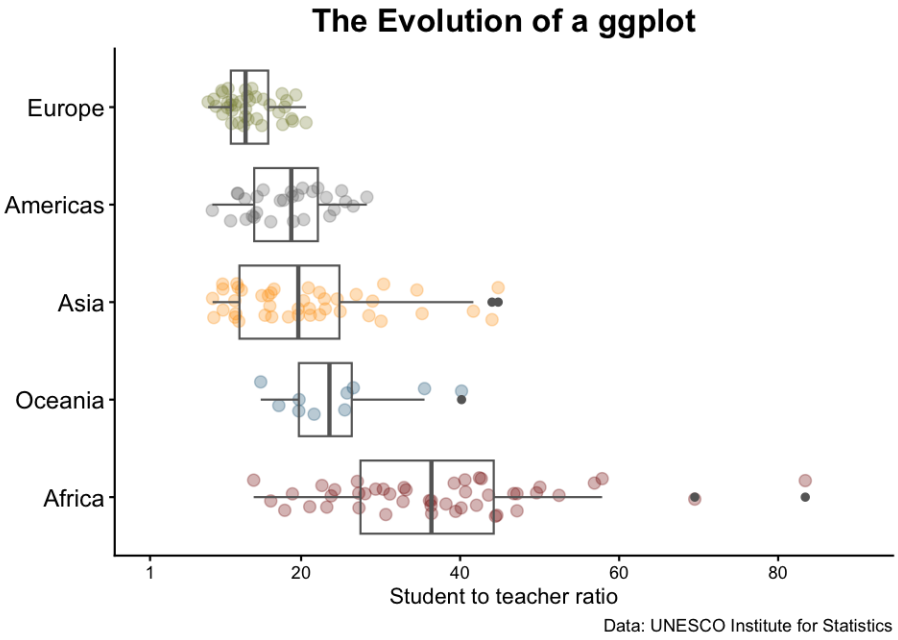
3.3 Fix overplotting



3.4 Better fix for overplotting

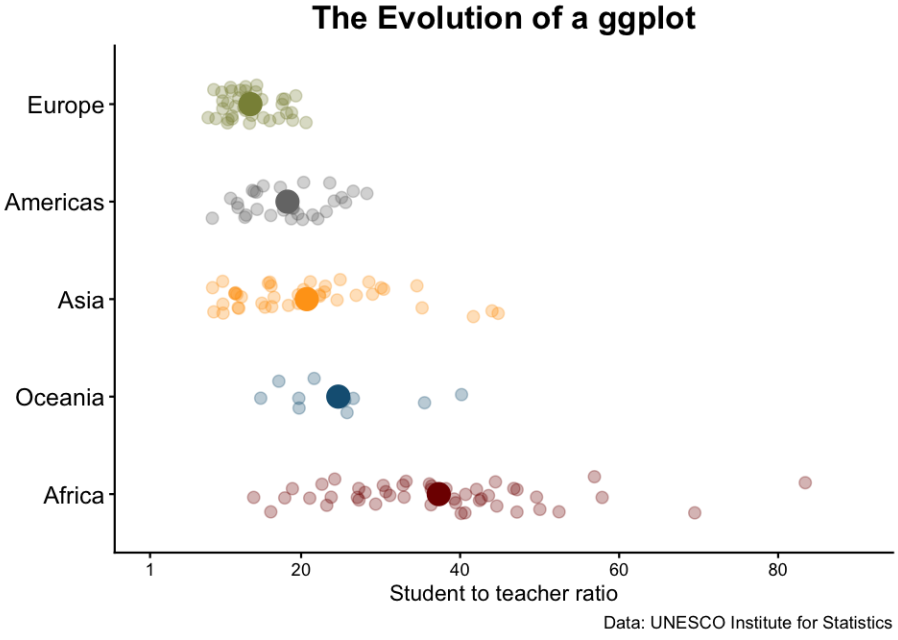


3.5 Return of the boxplot

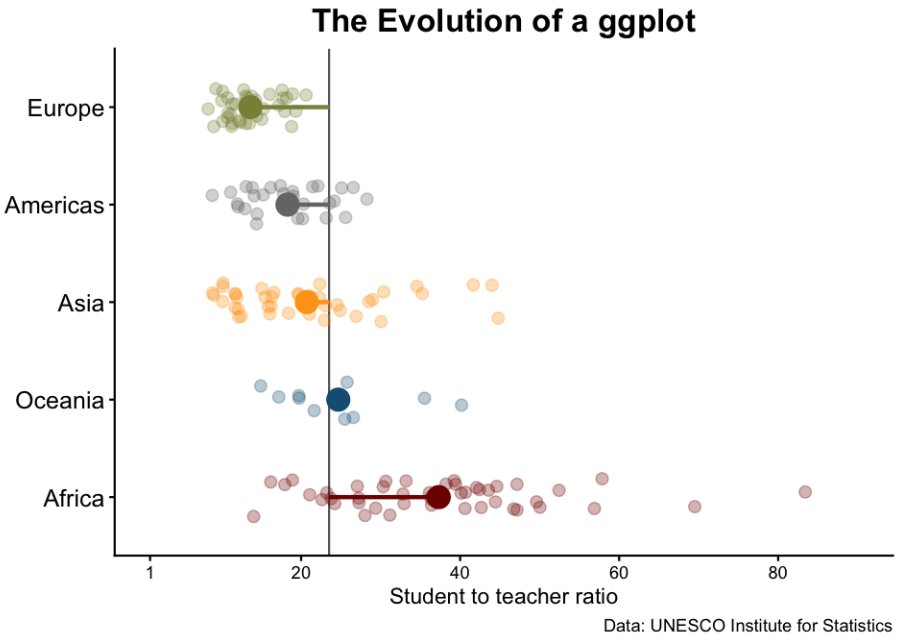


4 Final tweaks

4.1 Continental averages



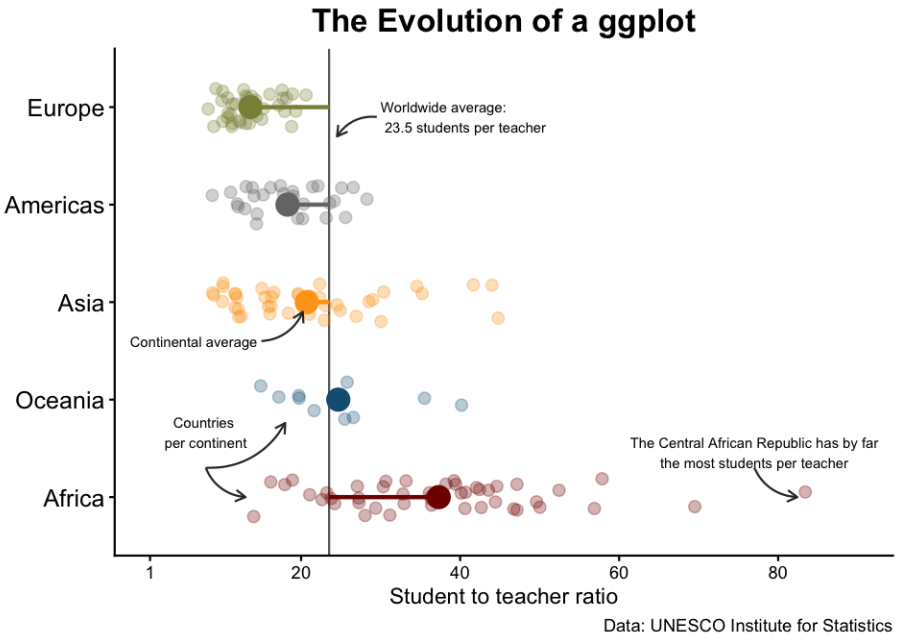
4.2 World average



4.3 Annotations

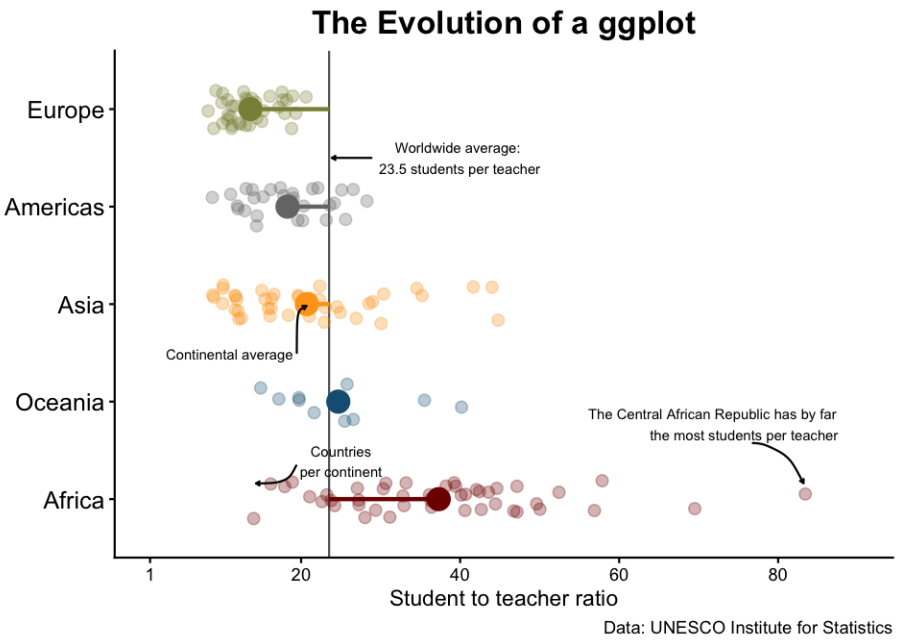
Choose *ONE* of the following strategies to annotate your plot:

4.3.1 Option A: `geom_text`, `geom_curve`



4.3.2 Option B: `geom_text_repel`

Note: there is some randomness in this function (just like `geom_jitter`), so it's ok if you can't match the target plot exactly.


The Evolution of a ggplot
Europe
Americas
Asia
Oceania
Africa
Worldwide average:
23.5 students per teacher
Continental average
Countries
per continent
The Central African Republic has by far
the most students per teacher
1
20
40
60
80
Student to teacher ratio
Data: UNESCO Institute for Statistics