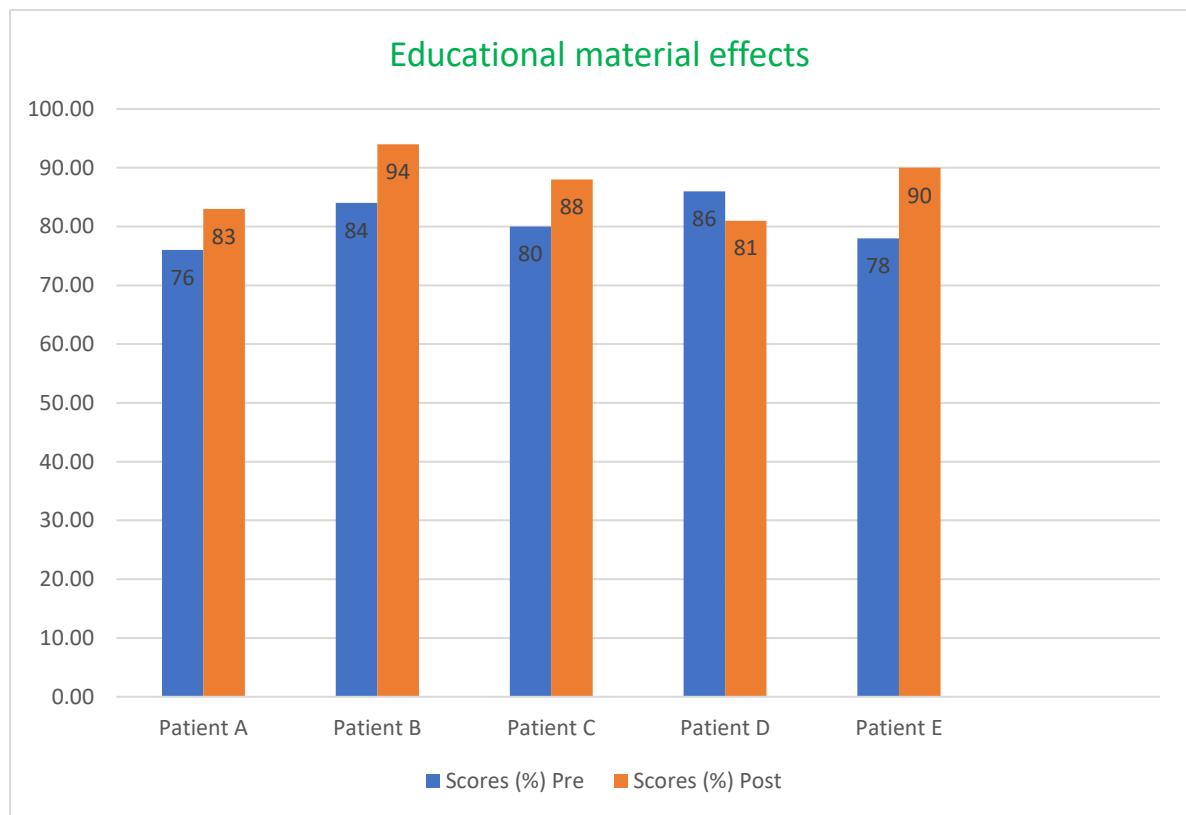


- A. Reattach the plot from HW01 solution. Critique this graph by provide a thorough description of how your graph MEETS or DOES NOT MEET the guidelines set by data visualization design principles.



In terms of graphical integrity, my graph works well. the purpose of this graph was showing the comparison between pre educational-training grades and post ones so I used 2 different colors to show that. But I'd better Change the colors to two shades of gray to guaranty that even if the graph is printed on a black-and-white printer or photocopier, they will still look distinctly different from one another.

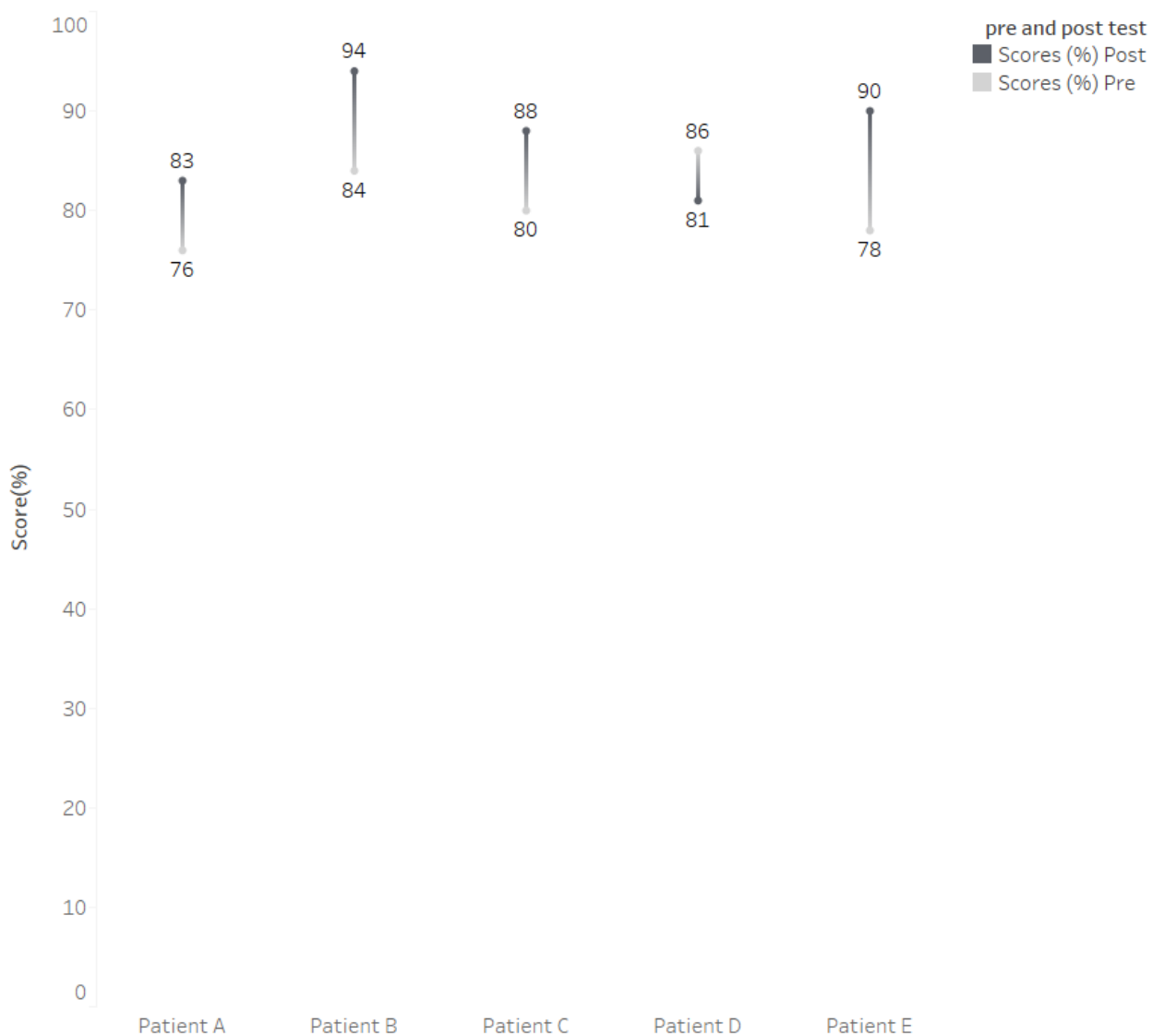
But in terms of design principles, we can see lots of problems here. First of all, there are lots of junks that can be avoided in graph such as grids, x axis which is not necessary to be here and also, I'd rather to delete the labels because I already use Y axis.

Also, to maximize data ink ratio, I'd better use a line to show the difference because total ink used in graphic will be minimized.

And also, it has a low information density.

- B. Update your graph using data visualization design principles and briefly discuss the ones you used in redesigning your graph. If you had no changes, i.e. if your graph from HW01 did not need any updates. Justify why?

patient's pre and post scores



Clarity: First principle which has been used here is clarity. I did not bring too many information here. As we want to detect the changes from pre and post scores for each patient, I just showed these two values.

Data-Ink Ratio: to satisfy the Data Ink Ratio, I did not use too many colors and ink for showing useless information. I erase all the redundant information. For instance, instead of showing the “pre” and “post” labels, I just used colors.

Layering and Separation: Also, for utilizing the Layering and Separation rule, I used colors to separate the pre and post scores. and made it in gray tone to be easy to print this graph by black and white printer.

Color Rules: I also did not use very strong color in this graph, because I did not want to distract the observer from the most Important point here which the difference between pre and post scores.

Aesthetics: There is not any part that distract the audience from paying attention to the important attract ones which can be unattractive if we present too much data.

Graphical Excellence: I tried to use this graph in the way that the viewer can get the greatest number of ideas in the shortest time and with the smallest space.