

### Instructions:

- The workshop must be submitted **in team of two** (with the pair working together and receiving the same mark).
- This workshop is worth 2.5% of the total course grade and will be evaluated through your written submission.
- Please submit the submission file(s) through Blackboard. Only one person must submit for the group and only the last submission will be marked.

### Part One: Comparing visuals

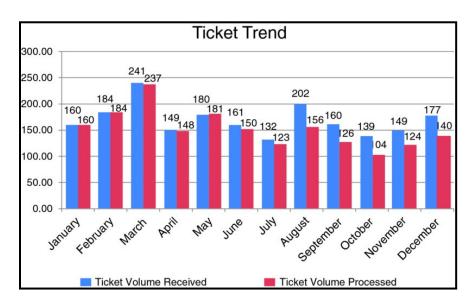
Question 1. Compare the following three visualizations: BEFORE and AFTER, based on

- 1. **Title**: Short titles enable readers to comprehend takeaway messages even while quickly skimming the graph. (number of words, size of font, location (left, center, ...))
- 2. **Subtitles and Annotations provide additional information**: Subtitles and annotations (call-out text within the graph) can add explanatory and interpretive power to a graph.
- 3. Labels are used sparingly: Focus attention by removing the redundancy.
- 4. **Color scheme is intentional**: Colors should represent brand or other intentional choice, not default color schemes. Color organization of graph before and after.
- 5. Color is used to highlight key patterns: Action colors should guide the viewer to key parts of the display.
- 6. **Graph highlights significant finding or conclusion**: Graphs should have a "so what?" either a practical or statistical significance (or both) to warrant their presence.

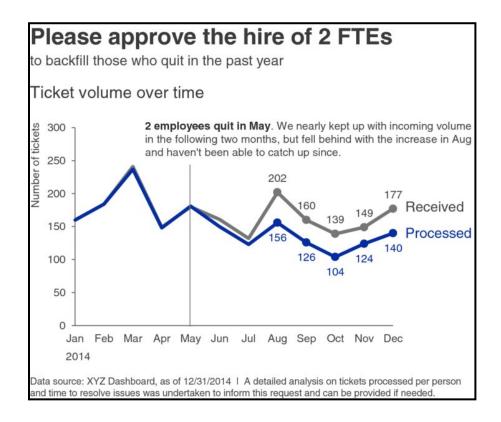


(a)

#### **BEFORE**



#### **AFTER**





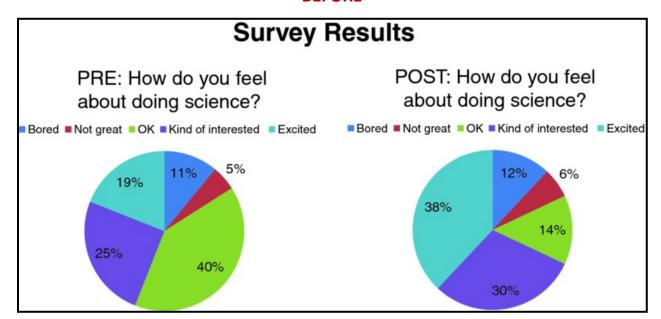
Comparing Graphical Visualization - 1		
Parameter	Graph 1 - Before	Graph 2 - After
Title	Chart Title - Ticket Trend: Title is self-explanatory and comprehends exactly what the bar chart visually depicts.  Axis Title – None: Titles on X-axis and Y-axis have not been mentioned which does not clarify what they represent, adding the titles could make the bar chart easier to understand.	Chart Title - Ticket volume over time: Title explains the line graph, but the positioning of the title is towards the middle extreme left which could be changed to the center top and to a bigger font to make it more visible and gain attention. A title essentially is a short description for the graph which does not show up here easily, it is being confused to the conclusion as it is of smaller font and we really need to dig in to find out the title of the graph, it does not provide value where it is placed.  Axis Title – Provided: X-axis shows the months in the year 2014 and Y-axis shows the number of tickets.
Subtitles and Annotations provide additional information	Subtitle - None: There is no subtitles or annotations present in the bar chart which makes it a bit difficult to understand the overview, may be adding a small annotation below the title of a smaller font could make it easier to understand the nature of the numerical difference across the bar chart.  Data source - None: Data such as where the data is sourced from, date, and short analysis would make it clearer.	Subtitle - 2 employees quit in May: The subtitle is present right above the graph towards the right and gives a proper understanding of the numeric difference since August.  Data source - Provided: It provides metadata such as dashboard name, date, and what is the analysis of the line graph which, furthermore, gives clarity and information.
Labels are used sparingly  Mathematical Street volume received, and Ticket volume processed are well-labelled with their numeric values in each month.		Data Label – Partially-labelled: Data labelling starts in the month of August, whereas the difference in the number of tickets processed versus tickets received is visible from June. If the data labelling was done from June, it would have made more sense. Also, if we are portraying a consistent data labelling, then we should label all the numbers to see where and how much the difference in numbers start.
Color scheme is intentional  represent what the actual output is, Ticket received is in blue color and Ticket processed is in red color, according to the color trend – if something is complete		<u>Distinct and somewhat apt</u> : Color combinations used are working for the line graph very well and are visually delivering the significance of the graph.



	"green/blue colors" are used to depict that and if something is incomplete "red/yellow/orange" colors are used. While here, Tickets processed is in red color and Tickets received is in blue color, which seems to be opposite color coding.	
Color is used to highlight key patterns	Action colors do not give clarity: Colors Blue and Red define Tickets Received and Ticket Processed simultaneously, which should be essentially the other way round.	Action colors somewhat provide clarity: Colors Grey and Blue have been chosen to show Tickets Received and Tickets Processed simultaneously which visually fulfill the requirements of the line graph.
Graph highlights significant finding or conclusion	Does not highlight any finding or conclusion: Visually the graph shows a downward trend in Tickets Received V/s Processed but it does not give conclusion or show what was the cause of this downward trend.	Highlights the conclusion appropriately: The graph does its work of delivering the conclusion very well, but it overpowers the effect of the title. The conclusion "please approve the hire of 2 FTEs to backfill those who quit last year" gives us the next action and the cause of the downward trend. On the other hand, it would have been better if the conclusion would be mentioned in a smaller font than title on the bottom of the line graph above the Data source.

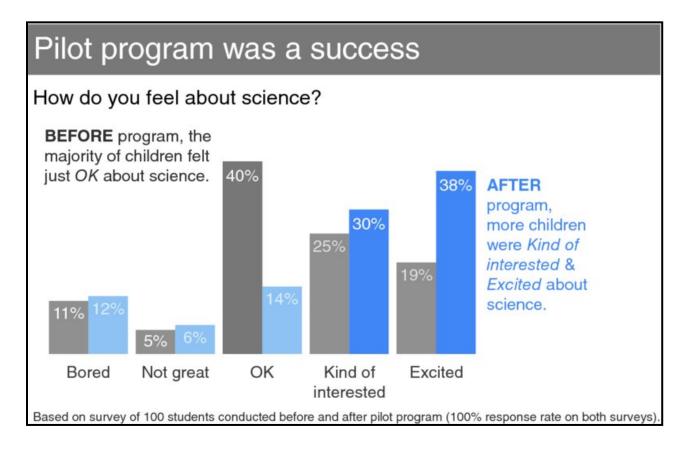
(b)

### **BEFORE**





# WorkShop1 AFTER



Comparing Graphical Visualization - 2		
Parameter	Graph 1 - Before	Graph 2 - After
Title	Chart Title – Survey Results: Title position is correct visually and size wise in the pie chart.  Axis Title – Not Required: As we are using the pie chart, no axis titles are required.	Chart Title - None: There is no graph title mentioned, adding a title will enhance the understanding of the bar chart.  Axis Title - Not Provided: X-axis, Y-axis, and their titles are missing in the bar chart. It looks like a casual bar chart than formal in this outline, which is concerning.
Subtitles and Annotations provide additional information	Subtitle - How do you feel about science? There are no additional annotations mentioned in the pie chart to enhance our understanding of the topic.	Subtitle - How do you feel about science? There are additional annotations such as Before program and After program, which helps in understanding the bar

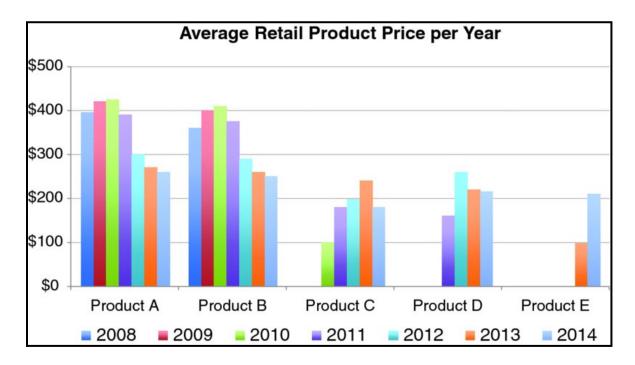


	<u>Data source - None</u> : No data source is provided for more information on the survey.	graph better. In addition to this, information of the basis of survey is provided on the bottom of the bar chart, the positioning of the subtitles is quite haphazard, it would be clearer if it would be placed together below the title.  Data source - None: No data source is provided for more information on the survey.
Labels are used sparingly	<u>Data Label – Well-labelled</u> : Percentages of all categories are quite clearly visible in the pie chart.	<u>Data Label – Well-labelled</u> : Percentages of all categories are quite clearly visible in the bar chart.
Color scheme is intentional	Somewhat apt: Color Scheme used does not visually let us know the interest of the students. Only the options "Not great" and "Kind of interested" chooses colors Magenta and Purple simultaneously which is apt. Rest colors are chosen quite randomly. Red should be chosen for "Bored", Orange for "OK" and Green for "Excited" to give a clear representation of the program.	Somewhat apt: At first glance, we can see colors – Blue and Grey being used. However, if we try to dig deeper, we can see light grey and light blue are used if the percentages are lesser than 25% but the shades are not distinct to show any uniqueness and there is no reason mentioned why we have chosen the threshold of 25% to mark difference. It can confuse the reader to understand the topic.
Color is used to highlight key patterns	Action colors do not give clarity: There is no pattern highlighted through the colors used.	Action colors do not give clarity: If we look keenly, light grey and light blue are used if the percentages are lesser than 25% to differentiate the interests of the students but it does not convey why this was done.
Graph highlights significant finding or conclusion	Does not highlight any finding or conclusion: The pie chart does not provide any highlight, conclusion, or next action to be performed.	Highlights the conclusion: The bar chart clearly states that "The pilot program was a success" but it takes the position of the title, which is not appropriate. It should be placed below the bar chart with a smaller font.

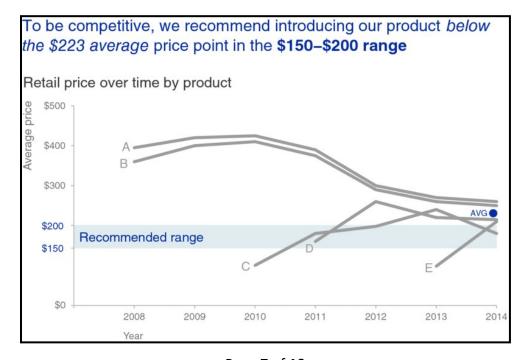


(c)

#### **BEFORE**



#### **AFTER**



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Comparing Graphical Visualization - 3		
Parameter	Graph 1 - Before	Graph 2 - After
Title	Chart Title – Average Retail Product Price Per Year: Title is self-explanatory and comprehends exactly what the clustered bar chart visually depicts. Axis Title – None: Titles on X-axis and Y-axis have not been mentioned which does not clarify what they represent, adding the titles could make the bar chart easier to understand.	Chart Title – Retail price over time by product: Title explains the line graph, but the positioning of the title is towards the middle extreme left which could be changed to the center top and to a bigger font to make it more visible and gain attention. A title essentially is a short description for the graph which does not show up here easily, it is being confused to the subtitle as it is of smaller font and we really need to dig in to find out the title of the graph, it does not provide value where it is placed.  Axis Title – Provided: X-axis shows the years from 2008 to 2014 and Y-axis shows the average price.
Subtitles and Annotations provide additional information	Subtitle -None: There are no subtitles or annotations present in the clustered bar chart which makes it a bit difficult to understand the overview, may be adding a small annotation below the title of a smaller font could make it easier to understand the topic of the bar chart.  Data source – Not Provided: The data such as where the data is sourced from, date, and short analysis would make it clearer.	Subtitle – somewhat provided: The subtitle is present on the top and provides little understanding of the recommended range. Additional information about how and why this graph is plotted would have made the understandability of the topic better.  Data source – Not Provided: The data such as where the data is sourced from, date, and short analysis would make it clearer.
Labels are used sparingly	<u>Data Label – Not-labelled</u> : We do not know the exact figures of the prices of products each year. Adding that, would enhance the readability of the clustered bar chart.	<u>Data Label – Not-labelled</u> : We do not know the exact figures of the prices of products each year. Adding that, would enhance the readability of the line graph.
Color scheme is intentional	Distinct and apt: Color combinations do not play a big role here to represent the years so random color combination used here is apt.	Same color used: All the products are of grey color. This can confuse the user to read the graph clearly. All products should use different colors to represent distinctness and uniqueness in readability.



Color is used to highlight key patterns	Action colors are not required: As the clustered bar chart signifies different years, action colors do not need to be specified.	Action colors are not required: As the line graph signifies different products, action colors do not need to be specified.
Graph highlights significant finding or conclusion	Does not highlight any finding or conclusion: The clustered bar chart does not provide any highlight, conclusion, or next action to be performed.	Does not highlight any finding or conclusion: The line graph does not provide any highlight, conclusion, or next action to be performed.

### Part Two: Download Tableau

- 1. Ensure you have downloaded a Tableau Desktop license on their laptop/PC (students are eligible for a free one-year license) YES,YES for both of us
- Ensure they have Microsoft Excel on their laptop/PC <u>YES,YES</u> for both of us

Question 1. Did you install Tableau Desktop on your machine? - YES, YES for both of us

# **Deliverables:**

#### SENECA'S ACADEMIC HONESTY POLICY

As a Seneca student, you must conduct yourself in an honest and trustworthy manner in all aspects of your academic career. A dishonest attempt to obtain an academic advantage is considered an offense and will not be tolerated by the College.

Add this declaration to your submission file:

WE, <u>Sukanya Mukherjee & Nishant Kotak</u>, declare that the attached assignment is our own work in accordance with the **Seneca Academic Honesty Policy**. I/We do not copy any part of this assignment, manually or electronically, from any other source including web sites, unless specified as references. I do not distribute my work to other students.

	Name	Task(s)
1	Nishant Kotak	Workshop 1
2	Sukanya Mukherjee	Workshop 1



### Using Blackboard, submit a PDF file

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