Hello Jagadeesh,

Example 1: Management Dashboards.

Observations on Current Visualization:
      The management dashboard showcases a variety of data visualizations, each offering insights into different aspects of business performance. Enhancements in design would refine the communication of this information (datapine, n.d.).

1. **Comment on "Need a Makeover":** The dashboard, while functional, presents an opportunity for a design makeover to streamline the flow of information and improve interpretability (Lastiri, 2023).
2. **Agreement on Design Improvement:** The dashboard stands to gain from design improvements, particularly in the area of visual hierarchy and data emphasis (Krishnappa, 2022).
3. **Explanation for Design Improvement:** A focused design improvement could include optimizing the color scheme for better distinguishing metrics and introducing interactive elements for a dynamic user experience. Simplifying visual elements to avoid overwhelming users can contribute to a more transparent, more actionable dashboard (Koytek, 2020; Kowieski, 2022).

Example 2: Sales Dashboards

Observations on Current Visualization:
      The sales dashboard is designed to offer snapshots of key performance indicators like conversion rates and sales funnel progress. The visual layout provides a segmented view of various stages in the sales process (datapine, n.d.).
1. **Comment on "Need a Makeover":** The dashboard's use of different visualization types – bar graphs, gauges, and numerical displays, offers variety. However, some elements, such as the gauges, might not be the most space-efficient way of displaying data (zebrabi, n.d.).
2. **Agreement on Design Improvement:** The design would benefit from improvements that could enhance data readability and space utilization (promptcloud, 2018).
3. **Explanation for Design Improvement:** Replacing the gauges with a more compact visualization could free up additional data or analysis space. Moreover, standardizing the color scheme across different charts would create a more cohesive look and assist in quicker data assessment (Koytek, 2020; zebrabi, n.d.).

Example 3: Decline of the school bus

Observations on Current Visualization:

The graph titled "Decline of the school bus" effectively conveys the transition in school transport methods, but it could be enhanced for better clarity and engagement (flowingdata, n.d.).

1. **Comment on "Need a Makeover":** The graph shows clear trends over time but might benefit from a design refresh to aid in storytelling and emphasize key findings (LOBEL, n.d.).
2. **Agreement on Design Improvement:** The current line graph is effective but could be improved. A more nuanced approach could further highlight the trends and make the data more relatable (LOBEL, n.d.; zebrabi, n.d.).
3. **Explanation for Design Improvement:** Introducing a more interactive design, perhaps with a slider to observe year-by-year changes, could provide a dynamic experience. Additionally, annotations indicating major societal shifts or policy changes could offer context to why these trends may have occurred. A dual-axis chart might also illustrate the proportion of students using each mode over time, offering a direct visual correlation between the rise of private vehicles and the decline in school bus usage (inforiver, n.d.; zebrabi, n.d.).

Design Principle Application in Data Visualization

For a deeper understanding of data visualization principles, consider the teachings of Edward Tufte, a pioneer in the field. Tufte emphasizes the importance of presenting information with clarity, precision, and efficiency. One of his fundamental principles is the "data-ink ratio," advocating for reducing non-essential ink to maximize the data's communication. This principle could be applied to refine the dashboards you are reviewing by minimizing non-data ink and maximizing the data presented (Raj, 2022).

Conclusion: Across these examples, the potential for design enhancement is evident. Whether improving visual hierarchy, increasing interactivity, or contextualizing data trends, each modification aims to transform raw numbers into a more compelling and actionable narrative. These adaptations streamline the flow of information and heighten the user's ability to engage with and derive insights from the data presented.

All The Best!

References:

datapine (n.d.). *MANAGEMENT DASHBOARD EXAMPLES*.
https://www.datapine.com/dashboard-examples-and-templates/management

datapine (n.d.). *SALES DASHBOARD EXAMPLES*.
https://www.datapine.com/dashboard-examples-and-templates/sales

flowingdata (n.d.). *Decline of the school bus*. https://flowingdata.com/

inforiver (n.d.). *Dual Axis Charts 101: Introduction and Best practices*.
https://inforiver.com/insights/dual-axis-charts-101-introduction-best-practices/

Koytek, P. (2020, June 8). *Picking Colors for Effective Data Visualizations with Brand
Identity in Mind*. Celonis Engineering.
https://engineering.celonis.com/blog/picking-colors-effective-data-viz/

Krishnappa, K. (2022, July 1). *6 Hierarchical Data Visualizations*. Medium.
https://towardsdatascience.com/6-hierarchical-datavisualizations-98318851c7
c5

Kowieski, J. (2022, September 19). *What is interactive data visualization and what
are the benefits of using it?* ThoughtSpot.
https://www.thoughtspot.com/data-trends/data-visualization/interactive-data-vi
sualization

LOBEL, G. (n.d.). *Data Storytelling vs Data Visualization: Understanding the
Difference*. Toucan.
https://www.toucantoco.com/en/blog/data-storytelling-vs-data-visualization

Lastiri, L. (2023, September 22). *5 Tips for Streamlining Data Analysis and Reporting
for Actionable Insights*. Kippy.
https://www.kippy.cloud/post/tips-for-streamlining-data-analysis-and-reporting-
for-actionable-insights

promptcloud (2018, March 2). *Use the Right Design Principles for Effective Data
Visaulization*.
https://www.promptcloud.com/blog/design-principles-for-effective-data-visualis
ation/

Raj, A. (2022, November 2). *Data-ink Ratio Explained With Example*. Codeconquest.
https://www.codeconquest.com/blog/data-ink-ratio-explained-with-example/#:~
:text=Edward%20Tufte%20has%20defined%20the,total%20elements%20in%
20the%20image.

zebrabi (2023, July 7). *How to Improve Gauge or Dial Chart Using IBCS Standards*.
Zebra bi.

https://zebrabi.com/guide/how-to-improve-gauge-or-dial-chart-using-ibcs-standards/