****Prompt:** Can you draw me the main data storytelling principles to use when creating dashboards?**

****Chat Answer:****

## ****Data Storytelling Principles for Dashboards****

### 1. ****Start with the Business Question****

* Always ask: “What decision should this dashboard help someone make?”
* Define **primary KPIs** (e.g., supplier cost trends, on-time delivery %).
* Keep the focus on the **why** and **so what**, not just the data.

### 2. ****Structure the Narrative****

* Apply a **top-down approach**:
  + **Overview / summary KPIs** (executive view).
  + **Trends / comparisons** (context over time or vs. target).
  + **Details / drill-downs** (for analysts).
* Example: Procurement dashboard → Total Spend → Spend by Supplier → Supplier-level transactions.

### 3. ****Clarity over Complexity****

* Show only what’s needed — avoid clutter.
* Limit number of charts on a single page (3–5 is a sweet spot).
* Use **consistent scales, colors, and labels**.

### 4. ****Use Visuals Intentionally****

* Match chart type to message:
  + Trend → Line chart
  + Comparison → Bar/column chart
  + Share of total → Pie/donut (only if few categories)
  + Distribution → Histogram/box plot
* Apply **color coding** for context (e.g., green = above target, red = below).

### 5. ****Highlight Key Insights****

* Use **data storytelling cues**:
  + Annotations to point out spikes or anomalies.
  + Conditional formatting for outliers (e.g., supplier late delivery > 20%).
  + Tooltips for context without overwhelming the main view.

### 6. ****Keep the User in Control****

* Provide **filters, slicers, drill-throughs** for interactivity.
* Allow users to segment by supplier, region, category, time period.
* Support **ad-hoc analysis** for unexpected questions.

### 7. ****Build Trust with Data Integrity****

* Show data sources and last refresh date.
* Ensure numbers are **consistent** with other reports (avoid multiple versions of truth).
* Document definitions (e.g., how is “on-time delivery” calculated?).

### 8. ****Design for UX****

* Place **most important KPIs at the top-left** (where eyes go first).
* Group related metrics together (cost, quality, delivery in procurement).
* Use whitespace and alignment for a clean layout.

👉 **Quick Example for Procurement Dashboard**

* **Top row**: KPIs → Total Spend, On-Time Delivery %, Supplier Defect Rate, Cost Savings vs. Target.
* **Middle row**: Trend line of Spend over 12 months, Bar chart of Top 5 Suppliers.
* **Bottom row**: Drillable table → Supplier details with filters (region, product category).