

## ## 1. **\*\*Match Table\*\*** ★★★★★ (ESSENTIAL)

### **\*\*What It Shows:\*\***

- All 40 collaboration matches with details
- Searchable, sortable list

### **\*\*How to Build:\*\***

- Visual Type: **\*\*Table\*\***
- Fields to Add:
  - `UserName`
  - `MatchName`
  - `UserDept`
  - `MatchDept`
  - `CCS\_Total`
  - `Topic\_Match`
  - `Method\_Match`
  - `Career\_Fit`
  - `Explanation`

### **\*\*Formatting Tips:\*\***

- Enable **\*\*Word wrap\*\*** for Explanation column
- Sort by CCS\_Total (descending) to show best matches first
- Make CCS\_Total column wider and bold
- Use conditional formatting: Color-code CCS\_Total (green for high, yellow for medium)

### **\*\*Why It's Important:\*\***

- Shows the core data clearly
- Most interactive element users will use
- Demonstrates data organization skills

## ## 2. **\*\*Slicers (Filters)\*\*** ★★★★★ (ESSENTIAL)

### **\*\*What It Shows:\*\***

- Interactive filters to explore data

### **\*\*How to Build:\*\***

- Visual Type: **\*\*Slicer\*\*** (create 3-4 of these)
- Slicer 1: `UserDept` - Filter by department
- Slicer 2: `UserMethod` - Filter by research method
- Slicer 3: `CCS\_Total` - Filter by score range (use "Between" mode)
- Slicer 4: `UserStage` - Filter by career stage (optional)

### **\*\*Formatting Tips:\*\***

- Position all slicers on the left side, stacked vertically
- Make slicers wide enough to read easily
- Use "Dropdown" or "List" style (looks cleaner than buttons)

### **\*\*Why It's Important:\*\***

- Shows interactivity skills (key for DSAR)
- Enables cross-filtering demo
- Most impressive feature to show in interview

## **## 3. \*\*CCS Score Distribution\*\* ★★ (HIGHLY RECOMMENDED)**

### **\*\*What It Shows:\*\***

- Distribution of collaboration scores
- How many matches fall in each score range

### **\*\*How to Build:\*\***

- Visual Type: **\*\*Column Chart\*\*** or **\*\*Bar Chart\*\***
- **\*\*Axis (X):\*\*** `CCS\_Total`
- **\*\*Values (Y):\*\*** Count of `CCS\_Total`
- **\*\*Title:\*\*** "CCS Score Distribution"

### **\*\*Advanced Option - Bins:\*\***

- Right-click `CCS\_Total` in Fields → **\*\*New Group\*\***
- Set bin size to 5 (creates ranges: 70-75, 75-80, 80-85, etc.)
- Use the grouped field instead

### **\*\*Formatting Tips:\*\***

- Use gradient color (darker green for higher scores)
- Add data labels showing counts
- Rotate x-axis labels if needed

### **\*\*Why It's Important:\*\***

- Shows data analysis thinking
- Demonstrates chart creation skills
- Easy to explain to interviewers

## **## 4. \*\*Summary Cards (KPIs)\*\* ★★ (HIGHLY RECOMMENDED)**

### **\*\*What It Shows:\*\***

- Key metrics at a glance
- Quick stats for decision-making

### **\*\*How to Build:\*\***

Create 3-4 separate Card visuals:

#### **\*\*Card 1: Total Matches\*\***

- Visual Type: **\*\*Card\*\***
- Field: Count of `UserName` (or any field)
- Title: "Total Matches"

#### **\*\*Card 2: Average CCS\*\***

- Visual Type: **\*\*Card\*\***
- Field: `CCS\_Total`
- Change aggregation to **\*\*Average\*\*** (click dropdown arrow)
- Title: "Average CCS Score"

#### **\*\*Card 3: High-Quality Matches\*\***

- Visual Type: **\*\*Card\*\***
- Field: `CCS\_Total` (Count)
- Add Filter: `CCS\_Total` > 85
- Title: "High-Quality Matches (>85)"

#### **\*\*Card 4: Method Diversity\*\* (Optional)**

- Visual Type: **\*\*Card\*\***
- Field: `UserMethod` → Distinct Count
- Title: "Research Methods"

### **\*\*Formatting Tips:\*\***

- Position cards at the top in a row
- Use large font for numbers
- Use professional colors (blue/gray scheme)
- Add subtle borders or backgrounds

### **\*\*Why It's Important:\*\***

- Shows understanding of KPIs
- Demonstrates business intelligence thinking
- Common in professional dashboards

## **## 5. \*\*Method Complementarity Matrix\*\* ★ (NICE TO HAVE)**

### **\*\*What It Shows:\*\***

- Which research method combinations score highest
- Heatmap showing method pairing effectiveness

### **\*\*How to Build:\*\***

- Visual Type: **Matrix** or **Table**
- **Rows:** `UserMethod`
- **Columns:** `MatchMethod`
- **Values:** Average of `CCS\_Total`

**Alternative (Simpler):**

- Visual Type: **Stacked Column Chart**
- **Axis:** `UserMethod`
- **Legend:** `MatchMethod`
- **Values:** Average of `CCS\_Total`

**Formatting Tips:**

- Use color scale (green = high scores, red = low)
- Enable conditional formatting
- Add data labels

**Why It's Important:**

- Shows advanced visualization skills
- Demonstrates data analysis depth
- Impressive for interviewers

## ## 6. **Department Analysis** ★ (NICE TO HAVE)

**What It Shows:**

- Which departments have most matches
- Department distribution

**How to Build:**

- Visual Type: **Bar Chart** (horizontal)
- **Axis:** `UserDept`
- **Values:** Count of matches
- **Title:** "Matches by Department"

**Formatting Tips:**

- Sort by value (descending)
- Use consistent colors
- Highlight Gies Business if prominent

**Why It's Important:**

- Shows you can analyze by business dimensions
- Relevant for DSAR work (department reporting)

## ## 7. **Career Stage Pairings** ★ (NICE TO HAVE)

### **What It Shows:**

- Distribution of career stage combinations
- Mentorship vs peer collaboration patterns

### **How to Build:**

- Visual Type: **Stacked Bar Chart**
- **Axis:** Create a calculated column: `UserStage & " + " & MatchStage`
  - Or use **Matrix** visual with `UserStage` as rows and `MatchStage` as columns
- **Values:** Count of matches

### **Simpler Option:**

- Visual Type: **Pie Chart** or **Donut Chart**
- **Legend:** `UserStage`
- **Values:** Count

### **Formatting Tips:**

- Use distinct colors for each stage
- Add percentage labels

### **Why It's Important:**

- Shows you understand the data meaningfully
- Demonstrates storytelling through visuals

## ## 8. **SDG Alignment Heatmap** ★ (OPTIONAL)

### **What It Shows:**

- Which SDG pairs create best matches
- Topic alignment patterns

### **How to Build:**

- Visual Type: **Matrix**
- **Rows:** `UserSDG`
- **Columns:** `MatchSDG`
- **Values:** Average of `Topic\_Match`

### **Formatting Tips:**

- Use heatmap color scale (red to green or blue gradient)
- Enable conditional formatting
- Add data labels showing averages

### **Why It's Important:**

- Shows advanced analysis
- Demonstrates understanding of the algorithm components

### ## 📊 Layout Recommendation

Dashboard Title				
[Card 1]	[Card 2]	[Card 3]	[Card 4]	
Total	Avg CCS	High-Qual	Methods	
[Slicer]	[Score Distribution Chart]			
Dept	[Bar Chart]			
[Slicer]				
Method	[Method Complementarity Matrix]			
	[Heatmap/Matrix]			
[Slicer]				
Score				
	[Match Table]			
	[Full table with all columns]			

### ## 🎨 Design Tips for All Visuals

- \*\*Color Scheme:\*\***
- Use UIUC colors (Blue #13294B, Orange #F47A00) if appropriate
  - Or use professional blues/grays
  - Keep consistent across all visuals
- \*\*Fonts:\*\***
- Use clean fonts (Segoe UI, Calibri)
  - Keep sizes readable (12pt minimum for text, larger for titles)
- \*\*Spacing:\*\***
- Give visuals room to breathe
  - Align visuals neatly
  - Use consistent padding/margins
- \*\*Titles:\*\***
- Every visual should have a clear title

- Keep titles concise but descriptive

## ## ⚡ Quick Build Priority

**\*\*Must Have (15 min):\*\***

1. ☒ Match Table
2. ☒ 3 Slicers (Dept, Method, Score)
3. ☒ Enable cross-filtering

**\*\*Should Have (+10 min):\*\***

4. ☒ Score Distribution Chart
5. ☒ 3 Summary Cards

**\*\*Nice to Have (+15 min):\*\***

6. ☒ Method Complementarity Matrix
7. ☒ Department Analysis Chart

**\*\*If Time Permits:\*\***

8. ☒ Career Stage visualization
9. ☒ SDG Heatmap

## ## 💬 What to Say About Each Visual

**\*\*Table:\*\***

> "This is the core data table showing all 40 matches. I've made it sortable and included all key information, including the explanations for why each match works."

**\*\*Slicers:\*\***

> "These interactive filters allow users to explore the data by department, research method, or score range. When you select a filter, all other visuals update automatically through cross-filtering."

**\*\*Score Distribution:\*\***

> "This histogram shows the distribution of collaboration scores. You can see most matches fall in the 85-90 range, indicating consistently high-quality recommendations."

**\*\*Summary Cards:\*\***

> "These KPI cards provide quick metrics at a glance—total matches, average score, and how many high-quality matches we have. This is the kind of executive summary view that's valuable for quick decision-making."

**\*\*Method Matrix:\*\***

> "This heatmap shows which research method combinations score highest. For example, Theoretical plus Empirical methods consistently produce high collaboration scores, which aligns with the algorithm's design."

## ## Pro Tips

### **\*\*Cross-Filtering:\*\***

- Click on each slicer → Click "Filter" icon for all other visuals
- This makes everything update together (most impressive feature!)

### **\*\*Conditional Formatting:\*\***

- Right-click on a field → **\*\*Conditional Formatting\*\***
- Great for coloring scores (green = high, red = low)

### **\*\*Data Labels:\*\***

- In Format pane → **\*\*Data labels\*\***
- Turn on to show numbers on charts

### **\*\*Tooltips:\*\***

- Visuals can show tooltips on hover
- Add detailed information that appears when hovering

**\*\*Remember:\*\*** Even a simple dashboard with a table and a few filters looks professional. Start with the essentials and add more visuals if you have time!