

# Insights Clustering Matrix:

## Clustering insights and showing their relations and hierarchies

### BENEFITS

- Enables systematic analysis
- Encourages comprehensiveness
- Facilitates comparison
- Handles large sets of data
- Makes process transparent
- Reveals patterns
- Reveals relationships

### INPUT

- List of insights generated from research findings

### OUTPUT

- A central diagram representing how insights are interconnected and clustered

## WHAT IT DOES

This method allows us to take a list of insights generated from the research on people and context and see how they are grouped together based on their relationships. The method uses a Symmetric Clustering Matrix to relate these insights. The results of clustering are then turned into a clustering diagram that displays all the insights together, showing their clustering patterns and overall interrelationships. The diagram shows how insights constitute larger clusters of insights and how, in turn, these clusters connect to higher-level ones in a hierarchical pattern. The method is particularly effective for constructing a big picture of insights from research that, in turn, can help us develop frameworks to drive concept exploration.

## HOW IT WORKS

### STEP 1:

#### List entities for clustering.

List the *insights* captured from research findings that you want to compare against each other to find clustering patterns.

### Step 2:

#### Determine the relation between entities.

The most commonly used relation is *similarity*, which measures how one insight in the list is similar to another.

### Step 3:

#### Determine a scoring scale to measure relations between entities.

The most commonly used scale has four steps: 0 means no relation between entities, 1 means minimum relation, 2 means medium relation, and 3 means maximum relation. It is a good idea to colour-code matrix cells according to the corresponding scores. For example, lighter greys for lower scores and darker greys for higher scores.

### STEP 4:

#### Create a symmetric matrix.

Create a spreadsheet with a square symmetric matrix. For this, enter *insights* as both row and column headings. Each cell in this matrix represents a relation between two corresponding insights.

**STEP 5:****Score the relations.**

Enter a relation score in each matrix cell. Scoring is best done as a team to reduce biases and get to as objective a score as possible.

**STEP 6:****Sort the matrix.**

For small matrices (up to 30 x 30), you can do a manual sort of the matrix by shifting the position of columns and rows in the matrix so that two rows or columns having similar scores are kept next to each other. After a few shifts of columns and rows this way, you can see the entities getting reordered to reveal clusters. For larger matrices (more than 30 x 30), it is better to use available statistic algorithms to sort the matrix for efficiency.

**STEP 7:****Identify clusters.**

After sorting the matrix, take a step back and look at the whole matrix and see how many insights clusters can be visually identified and defined. For a 100 x 100 matrix, it is a good idea to define 10 to 15 clusters. If needed you could also recognize 3 to 6 higher-level clusters.

**STEP 8:****Define and label clusters.**

Ask questions like: What makes the entities in this cluster belong together as a group? Why is this cluster different from other clusters? Discuss as a group and define each cluster based on the similarity between entities. Appropriately label each cluster.

**STEP 9:****Capture insights and make frameworks.**

Capture insights from the clustering patterns shown in the matrix. Are the clusters of the same size and density? If their density and size vary a lot, what does that mean? What can be learned from the different levels of clusters? If there are big overlaps between clusters, what does that mean? Discuss the clustering patterns and refine them as useful frameworks for concept generation.

**STEP 10:****Share insights and discuss.**

Summarize findings and share with team members and other stakeholders. Discuss the insights and frameworks and use the feedback to revise your analysis. Document your process and results.

