Houseplant Survey Data: Instruction Manual

Data fields and Scales

1. RespondentID: Unique identifier for each respondent (1-80)
2. Age: Respondent's age in years (numeric)
3. Gender: Respondent's gender identity
   * Options: Female, Male, Non-binary
4. Location: Type of area where the respondent lives
   * Options: Urban, Suburban, Rural
5. LivingSituation: Current living arrangement of the respondent
   * Options: Apartment, House, Condo, Dorm, Farmhouse, Cottage, Shared house

For questions 6-9, use the following scale:

1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

1. BelievePersonalities: "I believe my plants have unique personalities."
2. TalkToPlants: "I talk to my plants regularly."
3. RespondToMusic: "I believe my plants respond positively to music."
4. FeelGuilty: "I feel guilty when I neglect my plants."
5. PrimaryReason: Main reason for keeping houseplants
   * Options: Decor, Air purification, Companionship, Hobby, Stress relief
6. PlantSuperpower: If plants could have a superpower, which would you choose?
   * Options: Self-watering, Pest-repelling, Healing-touch, Mood-lifting, Super-strength
7. CareChallenge "How challenging do you find it to care for each of your plants?"
   * Use the following scale: 1 = Very Easy, 2 = Easy, 3 = Moderate, 4 = Difficult, 5 = Very Difficult
8. Joy "How much joy does each of your plants bring you?"
   * Use the following scale: 1 = No Joy, 2 = Little Joy, 3 = Moderate Joy, 4 = Significant Joy, 5 = Extreme Joy
9. FavoritePlantPersonality: "Describe the personality of your favorite plant." (text)
10. Plant: Type of plant owned by the respondent (Monstera, Spider Plant, and Succulent)

Transformations in Power Query

1. Adjust variable types into numeric/text
2. Duplicate dataset, call “Likert Data”, delete columns except for: respondentID, BelievePersonalities, TalkToPlants, RespondToMusic, and FeelGuilty
3. Select RespondentID, and unpivot other columns. You will now have 3 columns: RespondentID, Attribute, and Value
4. Save the file, Close and apply
5. Go to Model View, and link the tables by the RespondentID with a many to many cardinality and cross-filter direction: both
6. Create a new measure for Count = Countrows(‘Plant Data')

Visualizations

1. Primary Reason for Keeping Plants by Living Situation - Treemap
   1. Select the Treemap visualization.
   2. Drag 'LivingSituation' to the Category field.
   3. Drag 'PrimaryReason' to the 'Details' field.
   4. Drag 'Count' to the 'Values' field.
   5. Add data labels
2. Favorite Plant Personality by Plant Type - Word Cloud and Slicer
   1. Generate word cloud by adding the word cloud visual from the Microsoft store
   2. Drag ‘FavoritePlantPersonality’ to category
   3. Drag ‘Count’ to values.
   4. Select Slicer visualization.
   5. Drag ‘Plant’ to see descriptives for different plants' "personalities".
   6. Change the formatting of the slicer to be a dropdown list.
3. Plant Superpower by Age Group - Clustered Column Chart and Tooltip
   1. Create a new column ‘Age Group’ using DAX:
   2. In ‘Table View’, within ‘Table Tools’, Select ‘Add New Column’

Age Group = SWITCH(TRUE(),

[Age] <= 30, "18-30",

[Age] <= 45, "31-45",

[Age] <= 60, "46-60",

"60+")

* 1. Select the Clustered Column Chart visualization.
  2. Drag 'Age Group' to the ‘Legend’ field.
  3. Drag 'Count' to the ‘y axis’ field.
  4. Drag ‘PlantSuperpower’ to the ‘x axis’ field.
  5. Create tooltip by adding a new page, named ‘Gender and Location’
  6. Format the page under ‘Page Information’ and toggle ‘Allow use as tooltip” ON
  7. Add 2 pie charts visuals to the page
  8. Drag ‘Gender’ to the ‘Legend’ field
  9. Drag ‘Count’ to the ‘Values’ field
  10. Format the visual by toggling ‘Legend’ ON, format to ‘Top Center’, turn off title
  11. Turn ‘Detail labels’ ON, format to ‘Percent of total’
  12. Repeat steps j-m for ‘Location’
  13. Hide the tooltip page
  14. On ‘Plant Superpower by Age Group’ visual, format the visual
  15. Under ‘general’, turn ‘Tooltips’ ON and select the page ‘Gender and Location’

1. Plant Care Challenge vs. Joy - Scatter Plot
   1. Within ‘Plant Data’ table, create three measures for average care challenge:
      1. Avg Succulent Challenge = Calculate(AVERAGE('Plant Data'[CareChallenge]), 'Plant Data'[Plant] = "Succulent")
      2. Avg Monstera Challenge = Calculate(AVERAGE('Plant Data'[CareChallenge]), 'Plant Data'[Plant] = "Monstera")
      3. Avg Spider Plant Challenge = Calculate(AVERAGE('Plant Data'[CareChallenge]), 'Plant Data'[Plant] = "Spider Plant")
   2. Within ‘Plant Data’ table, create three measures for average joy:
      1. Avg Succulent Joy = Calculate(AVERAGE(‘Plant Data’[Joy], ‘Plant Data’[Plant] = “Succulent”)
      2. Avg Monstera Joy = Calculate(AVERAGE(‘Plant Data’[Joy], ‘Plant Data’[Plant] = “Monstera”)
      3. Avg Spider Plant Joy = Calculate(AVERAGE(‘Plant Data’[Joy], ‘Plant Data’[Plant] = “Spider Plant”)
   3. Under ‘Table View’, ‘Table Tools’, Create a new table ‘PlantTypes’ with DAX:

PlantTypes = UNION(

ROW("PlantType", "Succulent", "AvgChallenge", [Avg Succulent Challenge], "AvgJoy", [Avg Succulent Joy], "Count", calculate([Count], 'Plant Data'[Plant] = "Succulent")),

ROW("PlantType", "Monstera", "AvgChallenge", [Avg Monstera Challenge], "AvgJoy", [Avg Monstera Joy], "Count", calculate([Count], 'Plant Data'[Plant] = "Monstera")),

ROW("PlantType", "Spider Plant", "AvgChallenge", [Avg Spider Plant Challenge], "AvgJoy", [Avg Spider Plant Joy], "Count", calculate([Count], 'Plant Data'[Plant] = "Spider Plant")))

* 1. Select the ‘Scatter Chart’ visualization.
  2. From the PlantTypes table, drag 'AvgChallenge' to the 'X-axis' field.
  3. Drag 'AvgJoy' to the 'Y-axis' field.
  4. Drag 'PlantType' to the 'Legend' field.
  5. Drag ‘Count’ to the 'Size' field.

1. Likert Scales – 100% Stacked Bar Chart
   1. Go to ‘Data View’ and select the ‘Likert Data’ table.
   2. Right click on ‘Value’ and select ‘New Group’.
   3. Select ‘Group Type’ as ‘List’
   4. Group the values based on the likert scale 1-5 (eg 1 = Strongly Disagree).
   5. In ‘Data View’, select ‘Column Tools’ and sort the new column ‘Value (groups)’ by the ‘Value’ column.
   6. Select the ‘100% Stacked Bar Chart’ visualization.
   7. Drag ‘Attribute’ to the ‘Y-axis’ field.
   8. Drag ‘Count’ to the ‘X-axis’ field.
   9. Drag ‘Value (groups)’ to the ‘Legend’ field.
   10. Format the visual by toggling ‘Legend’ ON, format to ‘Top Center’, turn off title
   11. Turn ‘Detail labels’ ON, format to ‘Percent of total’
2. Apply a design theme under the ‘View’ tab, ideally ‘Colorblind Safe’, but this is where you can change colorways.