

Performing Arts Survey and Walkthrough

Below are questions that were included in a survey of respondents' interest in the performing arts. In the Excel file, you will find each respondent's answer to these questions.

Q1: Arts activities may include attending live performances of music, dance or theatre, visiting museums and galleries, listening to recordings at home, or creating art yourself such as painting or singing in a chorus. Would you say that you are ... in arts activities?

Not at all interested	Not very interested	Somewhat interested	Very interested	Extremely interested
1	2	3	4	5

Q2-Q8: Now I'd like to ask how much you like or dislike a few different kinds of cultural activities. On a scale from 0 to 10, with 0 meaning that you dislike it a lot and 10 meaning that you like it a lot, in general how much do you like or dislike...?

- Visiting art museums or galleries (**Q2**)
- Attending jazz concerts (**Q3**)
- Attending stage plays (**Q4**)
- Attending musical theatre performances such as Broadway shows (**Q5**)
- Attending opera performances (**Q6**)
- Attending ballet performances (**Q7**)
- Attending classical music concerts (**Q8**)

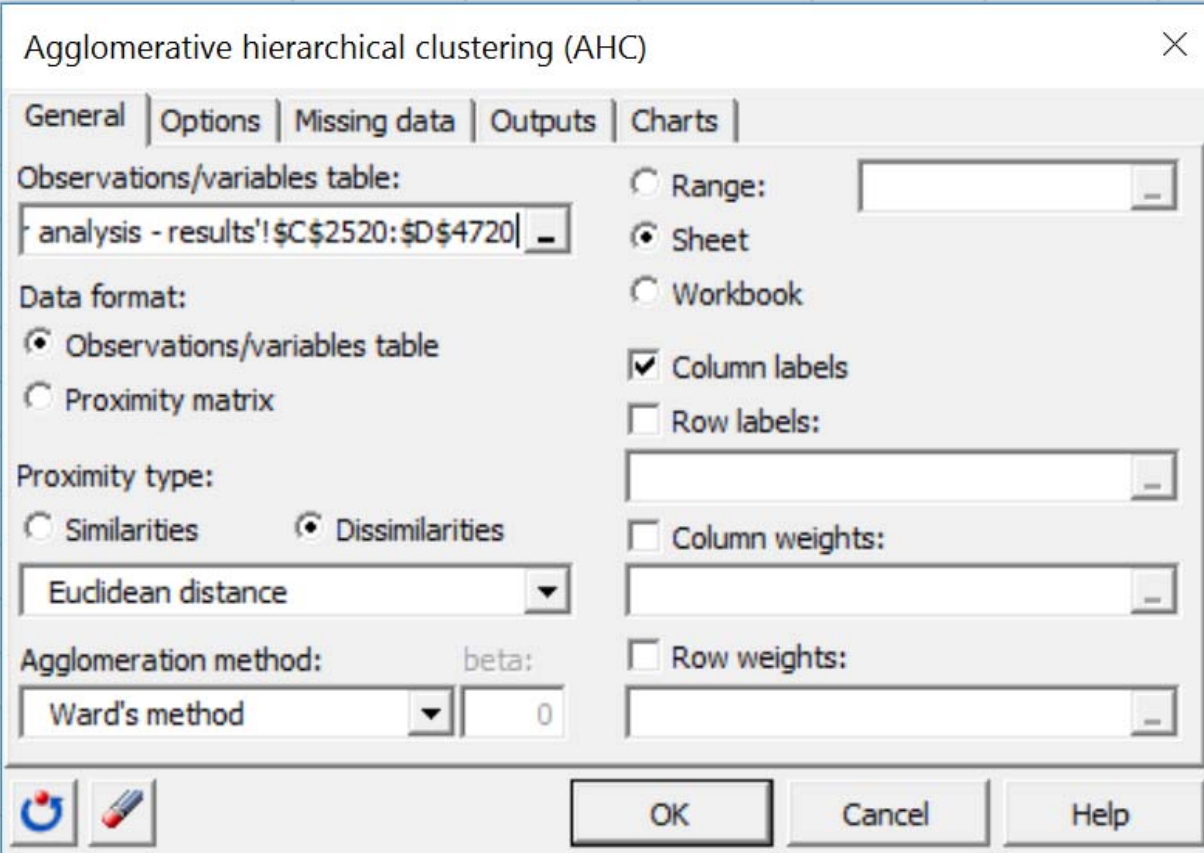
GENDER: What is your gender?

- ☐ Male (1)
- ☐ Female (0)

Walkthrough for Module 3 Question

We will use the results of the 2-factor solution to determine how many customer segments there are and how they differ. We will use agglomerative hierarchical clustering (ACH) in XLSTAT.

While on the “Factor analysis – results” worksheet, select Analyzing Data from the XLSTAT ribbon. Click on “Agglomerative hierarchical clustering (ACH)”. For the Observations/variables, select the region from C2520 to D4720. Be sure that the option for “Column labels” is checked. The dialog box should appear as follows:



The screenshot shows the "Agglomerative hierarchical clustering (AHC)" dialog box with the following settings:

- General** tab is selected.
- Observations/variables table:** "analysis - results!\$C\$2520:\$D\$4720"
- Data format:** ☒ Observations/variables table, ☐ Proximity matrix
- Proximity type:** ☐ Similarities, ☒ Dissimilarities
- Distance:** "Euclidean distance" (dropdown)
- Agglomeration method:** "Ward's method" (dropdown), **beta:** "0" (text box)
- Range:** (empty text box)
- Sheet:** ☒ Sheet, ☐ Workbook
- Column labels:** ☒ (checked)
- Row labels:** ☐ (unchecked)
- Column weights:** ☐ (unchecked)
- Row weights:** ☐ (unchecked)

Buttons at the bottom: OK, Cancel, Help.

Click OK. Note that it may take a few minutes for the results to be produced.

The dendrogram (shown at row 2243) suggests that there are 3 classes of respondents in the data. The class centroids (the center of the cluster, indicative of respondents in that cluster) are presented starting at row 2291. Recall that D1 is the factor corresponding to higher scores for the survey items Overall, Museums, Jazz, Opera, Ballet and Classical, and that D2 is the factor corresponding to higher scores for Plays and Musicals.